

COUNTRY GUIDE

THE FARM MAGAZINE

GENERAL SCIENCES

Hog Barn for Liquid Feeding

Bigger Machines Cut Costs

Canada Imports Charolais



935



SEPTEMBER 1965 — 25¢

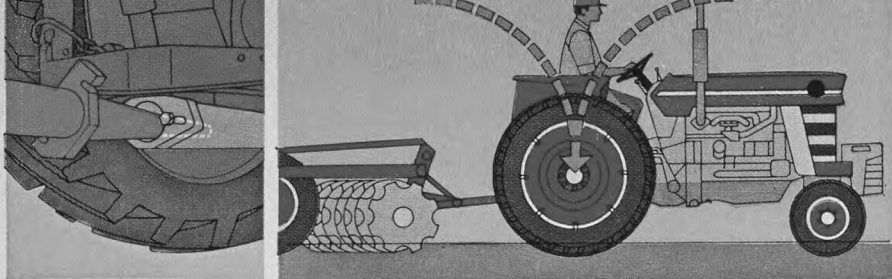
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MOST POWERFUL TRACTORS MASSEY-FERGUSON EVER BUILT

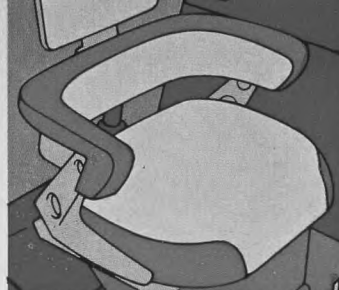
They're totally new—the latest additions to the Rugged New MF Breed. They're the totally strong Western style luggers: the 92 hp* MF 1100 and the 120 hp* turbocharged MF 1130. Both have the last word in convenience and comfort. Both have 6-cylinder direct injection diesel power plants. Both come with or without exclusive new Pressure Control. See these giants now! *Manufacturer's estimate



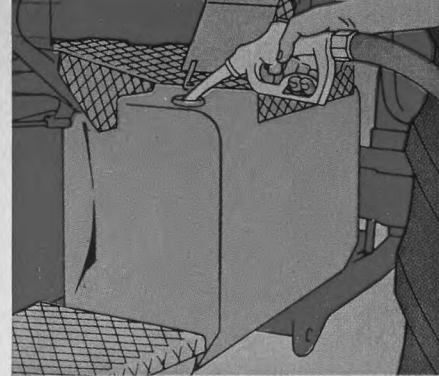
120 hp turbocharged MF 1130
Western model.



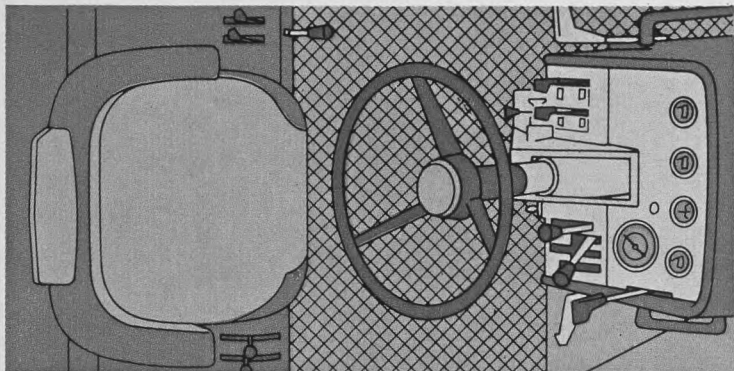
Now, with **Pressure Control** added to the Advanced Ferguson System, and with this special coupler, you get instant weight-transfer traction with big Pull-Type Implements. If wheel slippage starts, you simply increase the hydraulic system pressure, right from the driver's seat and on the go. Pressure Control "borrows" the extra weight called for—up to 3 tons—from the implement and the tractor's front end, and automatically transfers it to the drive wheels. Instantly you get the traction to pull through . . . Both tractors are also available without Pressure Control, and with massive swinging drawbars and high-capacity independent hydraulic systems for remote cylinders.



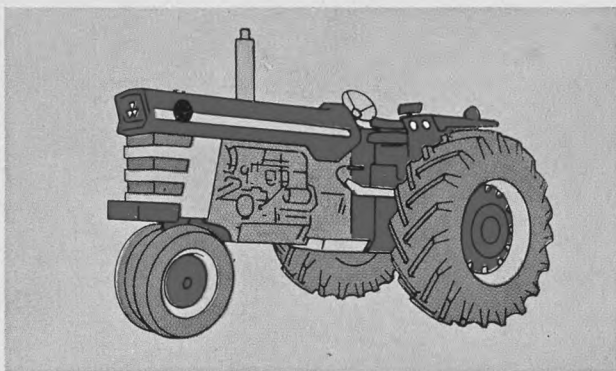
Airluxe Seat is the most comfortable made. Air suspended to absorb jolts. Forward-back adjustment; power-actuated height adjustment. Cushioned seat, back and arm rests.



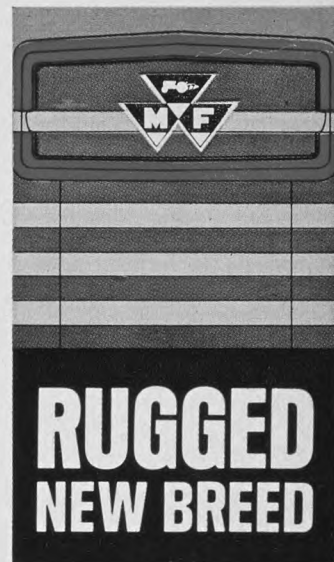
Saddle Fuel Tank is down low, beneath the driver's seat. Easy to fill from ground. Less fuel evaporates. All-day capacity—42 gallons.



World's most efficient Control Cockpit. Enclosed to seal out dirt and dust. Effortless hydrostatic power steering, with extendable, tiltable steering column. Everything is handy on the dash—gear shift, Multi-Power, all instruments and gauges. Electroluminescent dash lighting—no bulbs to replace ever. Wide, unobstructed platform—plenty of room to stand and stretch.



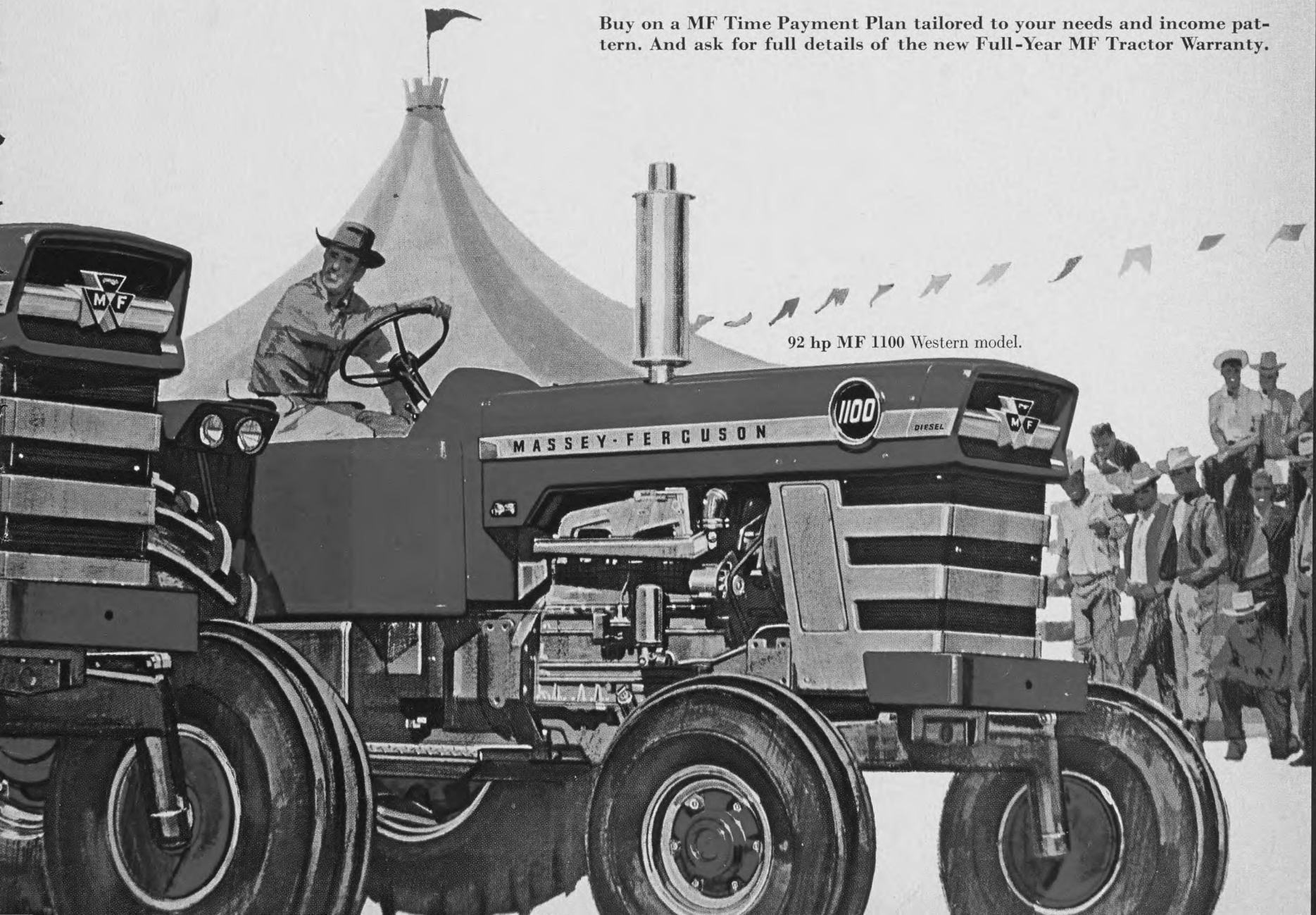
Row-Crop Models are also available, with Dual Wheel or wide adjustable front axle . . . and with Advanced Ferguson System and Pressure Control.



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COUNTRY GUIDE

THE FARM MAGAZINE

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SEPTEMBER 1965

Country Guide correspondent Jim Romahn reports from Waterloo County, Ont., that many farmers there are remodeling old hog barns or building new ones. Of the new buildings, one of the most interesting incorporates a liquid feeding system. He describes it on page 15.

Since 30 head of Charolais were shipped from France to Mexico a quarter century ago, all countries in North America have prohibited cattle importations from continental Europe. The situation has left Charolais breeders starved for new bloodlines to improve their herds. Now, a plan has been devised by which Charolais are coming to Canada. Canadian Cattlemen editor Frank Jacobs visited France with buyers from this continent, and on page 18 he tells how the import barriers are being hurdled, and what it all means to Canadian farmers.

In the limited-opportunity areas around Hadashville, in southeastern Manitoba, associate editor Elva Fletcher found a self-help program that is paying big dividends for 74 local farmers. They formed a co-op, set out a 14-acre strawberry plot, and found a pent-up demand among city folks for their new cash crop. Hundreds of people such as those pictured at right poured into the area to pick their own strawberries for 25 cents a pound. The story is on page 35.



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About Our Cover

It's apple harvest time in Ontario. These Red Delicious, which will go into controlled atmosphere storage in the new building of the Norfolk Fruit Growers Association Co-operative, are being picked on the Tom Cleaver farm at Simcoe.—Don Baron photo.

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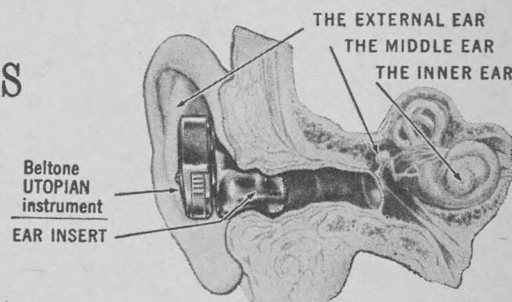


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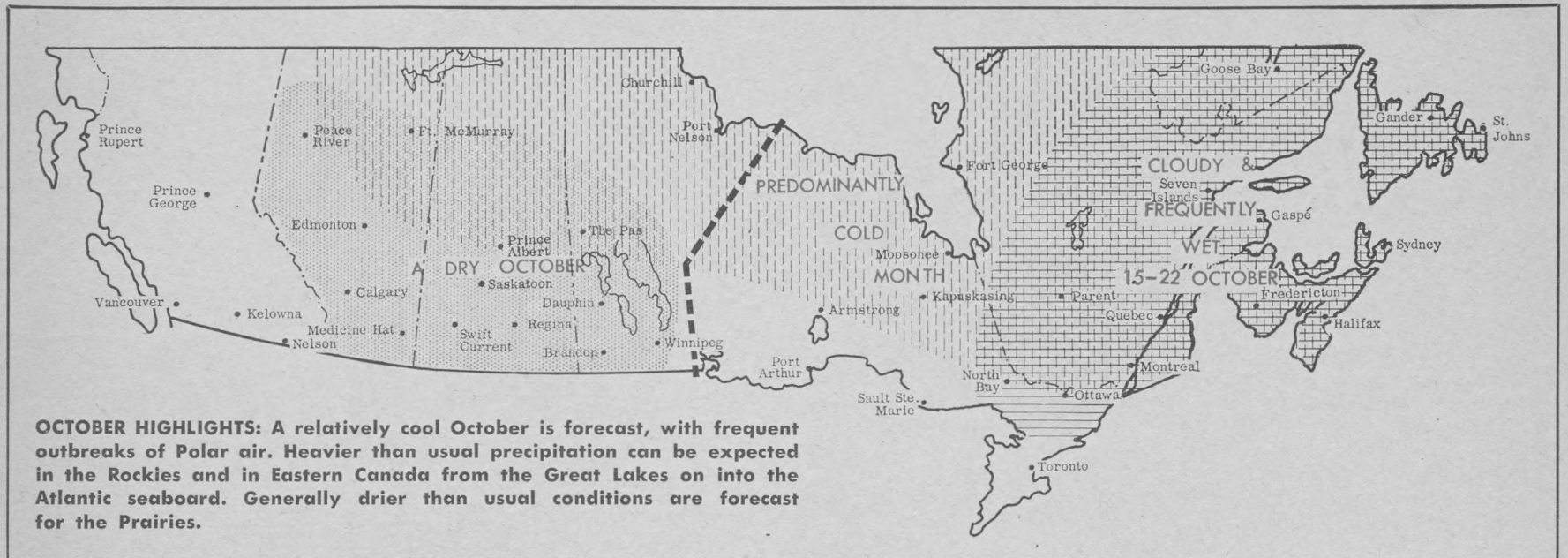
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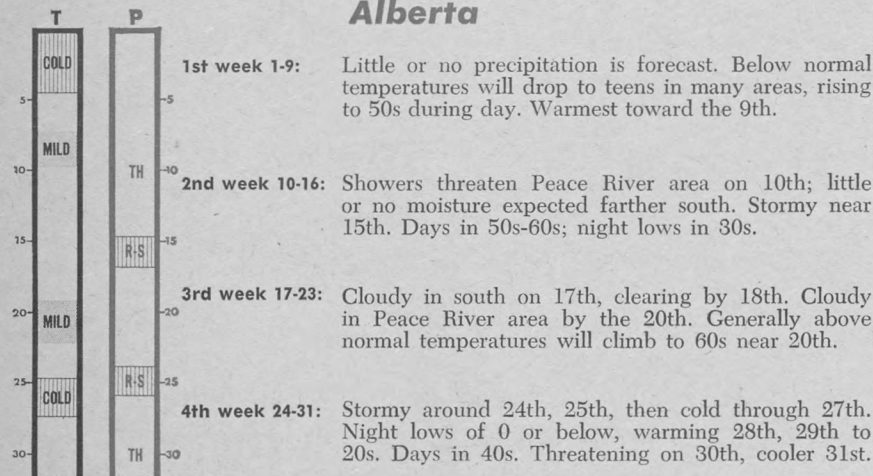
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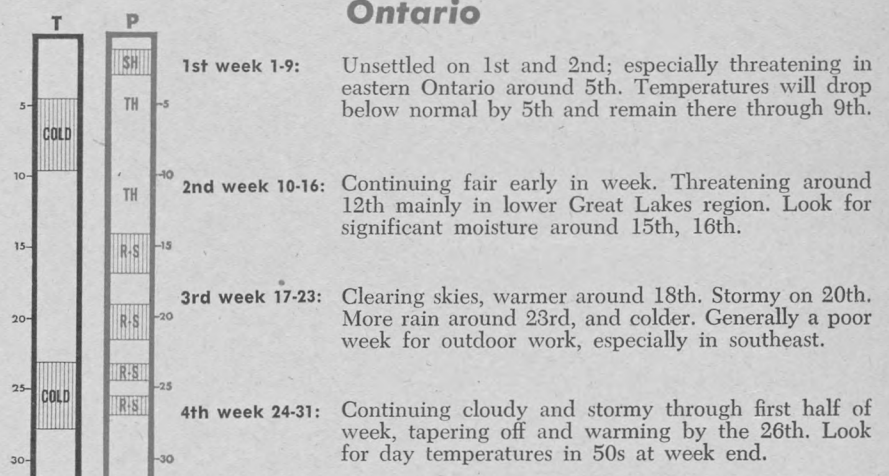
OCTOBER 1965

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—Ed.)

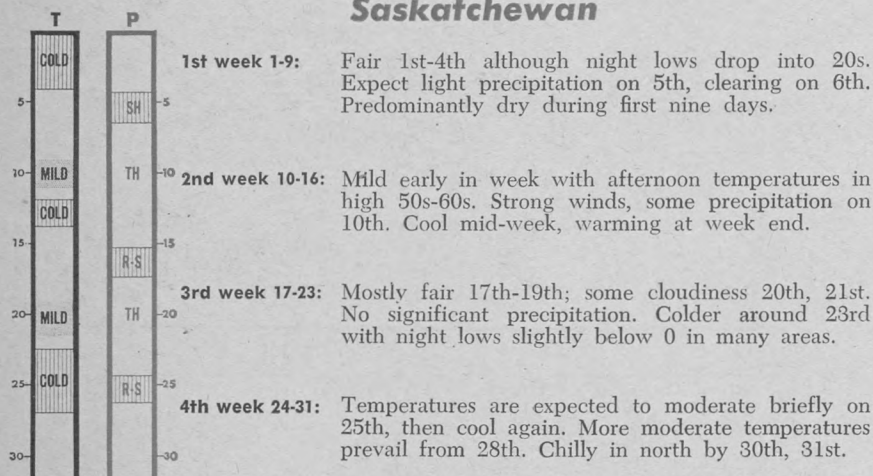
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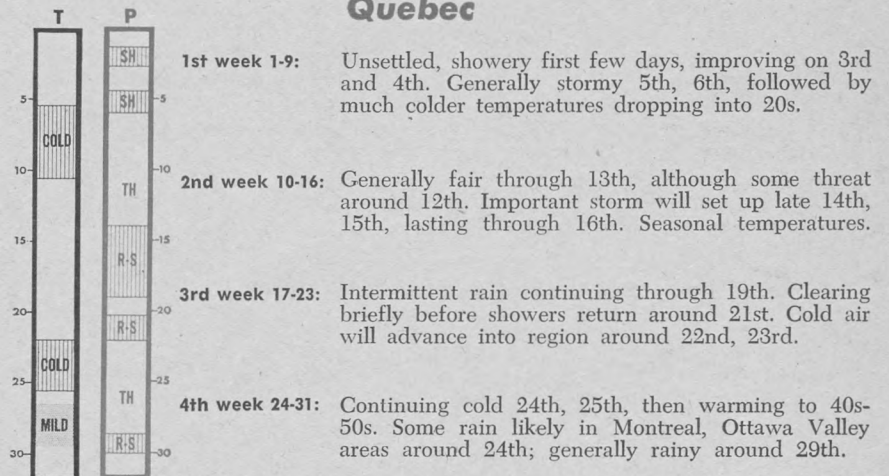
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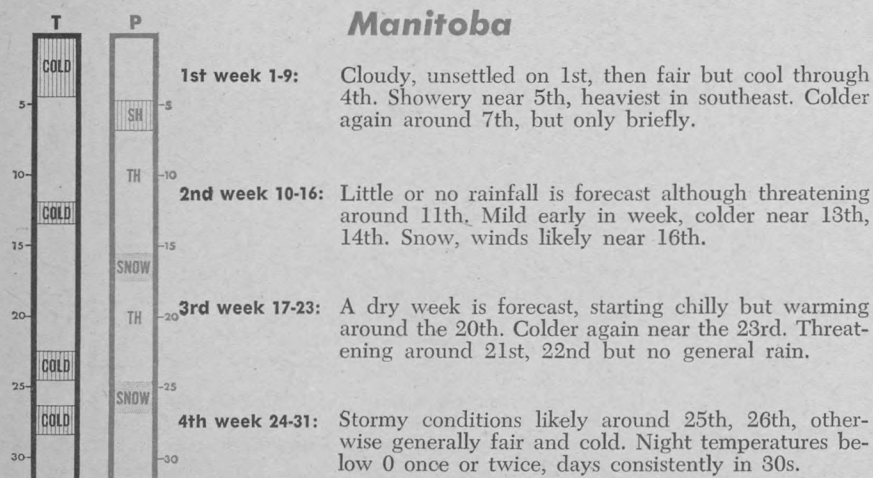
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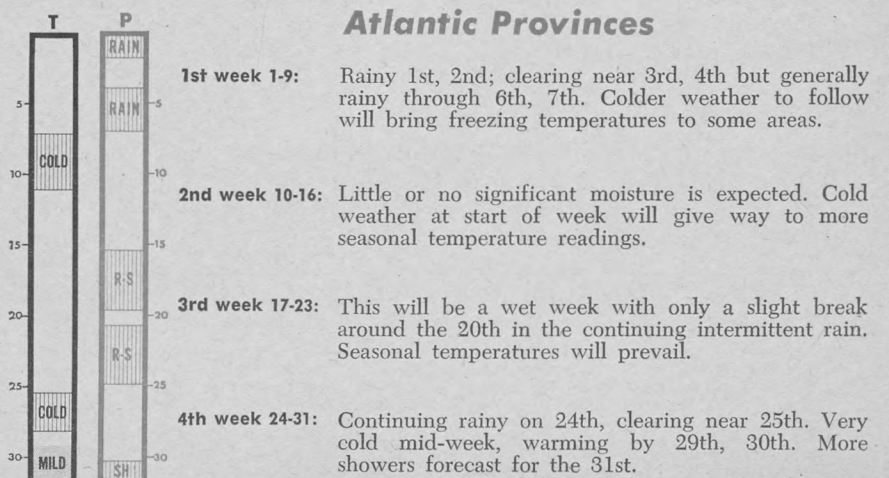
Quebec



Manitoba



Atlantic Provinces



Key to Abbreviations: T, temperature; P, precipitation; CL, cooler; WM, warmer; TH, threatening; SH, showers; R-S, rain or snow.

Editorials

What Is a Fair Wage?

FARMERS WHO TAKE a look at the settlement made by the grain companies (most of which are farmer-owned) with striking employees in their terminal elevators in Vancouver in August, might be excused for wondering what constitutes a fair wage these days.

When the strike started, unskilled workers in the elevators were getting \$2.48 per hour or about \$5,300 per year for their regular and overtime work (overtime, at 1½ times regular rate of pay, adds about 18 per cent to their regular hours). But the settlement pushed wages far beyond this. It gave the workers an across-the-board increase that will boost wages 48 cents to \$2.96 per hour by the final months of the contract which expires November 30, 1967. During these months, unskilled workers will be earning pay at the rate of about \$8,000 a year, providing hours of overtime work remain at present levels.

The settlement also gave the workers double rates for lunch and supper overtime hours (although it held other regular overtime rates at time-and-a-half). It gave them new medical and sickness benefits as well. It provided a new holiday schedule giving the men a 3-week holiday after 5 years' employment and a 4-

week holiday after 15 years (each week of holidays costs the companies the equivalent of 2 per cent in additional wages).

It was a settlement, said A. T. Baker, General Manager of the Alberta Wheat Pool, for which there was no economic justification, but it was one which the companies were forced to make because of government and public pressure.

The disturbing part of this settlement, in the eyes of the farmers, is that the wages won by the workers will come from the farmers' pockets. For, in such a settlement, the costs can't be passed along to consumers. Wheat sells on the world market at world prices. Grain companies have no one except the farmers to whom they can pass along the costs. Farmers can only ask themselves, "Is it right that we pay unskilled workers \$8,000 a year?"

Certainly, the pressures on the companies, most of which are farmer-owned, were heavy. The strike was costing dearly. It had virtually tied up all the wheat shipments out of the port of Vancouver, and undoubtedly resulted in loss of export sales the extent of which will never be known. The impact of the strike on the Prairie economy caused the premiers of the

three provinces to dispatch a wire to Ottawa demanding that the government if necessary take over the elevators, to get the grain moving. But with a bumper crop ripening, with no apparent government support, and with the strikers successfully blocking Pacific wheat exports, companies yielded to most of the union's terms.

Strangely, despite the big wage benefits won by the union, wages were not the major strike issue. The strike really centered on the wording of the contract, and the demands of the companies for assurance that workers would stay on the job while the contract was in force. When the strike began, Alberta Wheat Pool was in the process of suing the union for losses caused by a wildcat strike last year. In the final settlement, the companies were unsuccessful in getting a "no strike, no lockout" clause in the contract. They did get the phrase "without stoppage of work" inserted in the clause which stated the specific steps by which grievances would be settled. That phrase, which was bitterly resisted by the union, represents one substantial gain for the companies, for in the words of Alberta Wheat Pool, it "provides a more easily enforced protection against illegal or wildcat strikes such as the Pool experienced last fall."

The episode provides a memorable lesson for farmers that these are indeed changing times, and that in a struggle between farmers and strong union forces, such as in the grain strike, the farmers' interests may be given scant attention in Ottawa and receive little public sympathy. Farmers and their organizations must find new methods of dealing with the pressures that are being applied to them by other groups in society today. V

That Wheat Sale!

EXTREME GOOD FORTUNE has smiled on Prairie grain growers for the second time in 3 years. In 1963, when a bumper crop was being harvested and grain growers were beginning to worry once again of surpluses, Russian buyers startled Canada and the world by making the biggest single purchase of wheat in Canadian history.

This year the story has been virtually identical. With another bumper crop ripening in the fields, Russian buyers came to Canada to purchase 187 million bushels of wheat and flour in one transaction, bringing their total purchases for delivery in this crop year to 222 million bushels, a deal worth about \$450 million to Canada.

It caused Trade Minister Sharp to glow with optimism, and to suggest that "once again, as in the crop year 1963-64, Canada will have an assured market for every bushel of wheat that can be moved through all our ports during the next 12 months.

"In fact," he went on, "the total demand for wheat is even greater than it was in that astounding year. . . . We shall establish another new record in wheat exports."

Mr. Sharp said it meant a market for the coming crop almost regardless of size. He said the target for exports of wheat and flour for the current crop year is 600 million bushels, which is larger than the 1963-64 record. Adding 150 million bushels for domestic consumption would mean a total disappearance of 750 million bushels of wheat.

In addition to its explosive short-term benefits, the deal prompted Wheat Board Chief Commissioner W. C. McNamara to predict that Canada is entering a new era of exports which should take care of all average wheat crops on current acreage.

"A few years ago, an annual export of about 275 million bushels of wheat was considered a pretty good year for Canada," he said. "Now

we visualize exports of 400 million bushels of wheat and flour a year which, coupled with domestic use of 155 million bushels, takes care of 555 million bushels."

The wheat deal has broad implications not only for agriculture but for the nation as a whole, and, in fact, for the world.

It will mean that the rapidly increasing demand of Prairie farmers for commercial fertilizers will continue to climb as farmers see a continuing market for big crops. It has caused the U.S. government to begin a review of its policy of requiring that at least half of any wheat sold for export must be moved in American ships. It may boost world trade generally at a time when there was some fear that it might be slackening off.

The sale was accompanied by Russian requests that Canada purchase more goods from that country to narrow the trade imbalance. It caused speculation among world financial officials that Russia would now be forced to

resume gold sales in the West. If this happens, it will help to ease the pressure on the London gold market and on the pound sterling. On the stock markets, it pushed up the shares of the rail and shipping firms and of some grain and flour companies which would benefit from the big grain movement.

The big wheat sale should not deal this country's livestock industry a setback, for it comes at a time when a big feed grain crop is also ripening in Western Canada. However, it may provide some problems in getting feed grains into position for Eastern feeders for this winter. Certainly it will require careful planning by those involved in feed grains movement in the weeks immediately ahead.

The sale turns the attention of the entire nation to the importance of agriculture to our economy. The impressive efficiency which this country's farmers are achieving, and which made the deal possible, is proving once again a blessing to farmers themselves, and to the nation and the world. V

The Case of the Missing Steer

THE COLORFUL and legendary West has no prerogative when it comes to rustling. Cattle and hog thieves have been active in Ontario. In one instance they lifted 16 head of finished steers from a feedlot. They have taken cattle from pastures, hogs from barns.

The situation is at once a sad reflection on our society and also a measure of today's favorable livestock prices. Farming has always been a hazardous business and farmers accept many risks as part of the price of farming. Rustling, however, is a hazard quite apart from all the rest.

Apprehending the guilty is all too frequently no easy task and often there is no clue, no evidence. Recently the Ontario Provincial

Police caught a man in the act of butchering a stolen steer, but such clear-cut cases are the exception rather than the rule. Insurance policies are often of scant value because "mysterious disappearances" are specifically excluded from the coverage. Rustlers are not in the habit of leaving a calling card; on the contrary, in one instance, having stolen a truck load of cattle, the thieves drove the remaining cattle out of the feedlot to cover their tracks. A number of mutual insurance companies have been obliged to seek amendments to their charters in order that they could insure livestock against theft.

At one time, it was customary to exact the death penalty for the theft of even a single sheep; it would not be too extraordinary if farmers who have suffered losses might be caught reminiscing about the good old days. Rustling is theft, and thieves should be severely punished. V

BUILT FOR THE BIG LAND



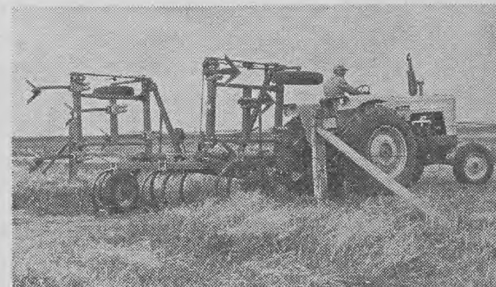
Cockshutt Cultivators rip through hardpan, conserve moisture, prevent erosion and topsoil loss

Built for the wide open spaces of the "Big Land," the Cockshutt 247 or 249 Heavy Duty Cultivators come in combinations of sizes to suit your soil conditions and tractor power. Hook up two 247's or a big 249 behind a new Cockshutt 1850 or 1950 Certified Power Tractor and you have the perfect tillage team for today's big power farming.

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Store Grain in Plastic Envelopes

It's a timely new idea for cheap temporary grain storage

THE NEWEST idea in temporary grain storage is a plastic envelope held in place by suction. All the materials you need to make one are two sheets of plastic and a ¼-1½ h.p. fan. This method will store grain in good condition for 1 or 2 months depending on weather and grain moisture levels.

The method was tried out last year by the University of Illinois. In the test, 700 bu. of clean shelled corn with moisture content of 19 per cent were stored between two sheets of 20 x 50 ft. 4 mil plastic for 40 days. Suction was obtained with a ¼ h.p. furnace fan running continuously. The cost of this storage, including the power for the fan, was 3½ cents per bu.

The first step is to lay the bottom sheet out on a level, smooth area near a power outlet. Then auger the grain into a pile onto the sheet until the bottom of the pile is 6 in. from the edges of the plastic. Pull the top sheet over the pile, turn up the bottom sheet and tuck the top sheet about 5 in. under the pile. The weight of the grain will complete the seal.

Fit the suction end of the fan between the edges of the top and bottom plastic sheets. Use a 2-ft. screened inlet to extend the suction pipe into the grain. Tie the plastic sheets tightly around the inlet pipe. The suction of the fan will pull the top sheet down tightly onto the grain. To cool the grain, lift a flap on the far side of the pile to allow cool air into the grain. Seal this flap during the day to prevent warming and the development of a drying front.

Sheets 20 x 100 ft. will hold 1,500 bu. if the grain is piled high enough to make the angle of the surface 30 degrees from horizontal. Sheets 40 x 100 ft. will hold 10,000-12,000 bu. Grain should be piled only 12 ft. high and 34 ft. wide so that the 40-ft.-wide sheet can reach across the top and be tucked under at the edges.

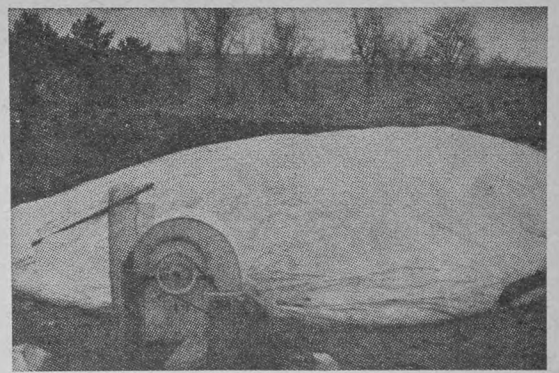
A ¼ h.p. fan developing ½ in. of suction will provide suction and cooling for 700-1,500 bu. A 1½ h.p. fan that will develop 3 in. of suction and move 1,000 c.f.m. should provide suction and cooling for 10,000-12,000 bu. A continuous power supply is needed but short failures will not be serious as the weight of the grain helps to hold the plastic in place.

Ground temperature at the time of storage is an important consideration. The grain in the bottom part of the pile at the center will stay at or near the ground temperature for some time. A high ground temperature and a high moisture percentage would limit the safe time of storage. A layer of dry grain in this critical area of the pile would help. The moisture collecting on the inside of the clear plastic is not a problem for the plastic is held so close to the

grain that this moisture is reabsorbed without causing damage.

Weather and rodents are no problem in this type of temporary storage. As long as there are no wrinkles or folds and as long as the plastic is held tightly to the grain surface wind will not shift it. The tight seal is enough to keep out rain and snow simply serves to hold the plastic down. Rodents are not attracted to the grain for the site is clean and

A ¼ h.p. fan running continuously, provided enough suction to keep the top sheet held down and to cool the grain



there is no smell of grain except at the fan outlet.

The piles should be protected from children, dogs, and livestock for the plastic tears or punctures

when it is stepped on.—Taken from a report by F. W. Andrew, Agricultural Engineering Department, University of Illinois, published in Illinois Research.

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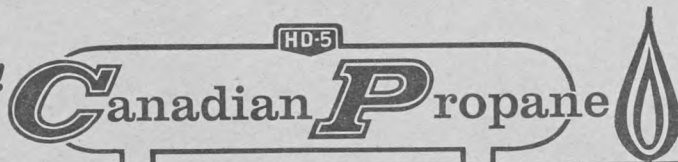
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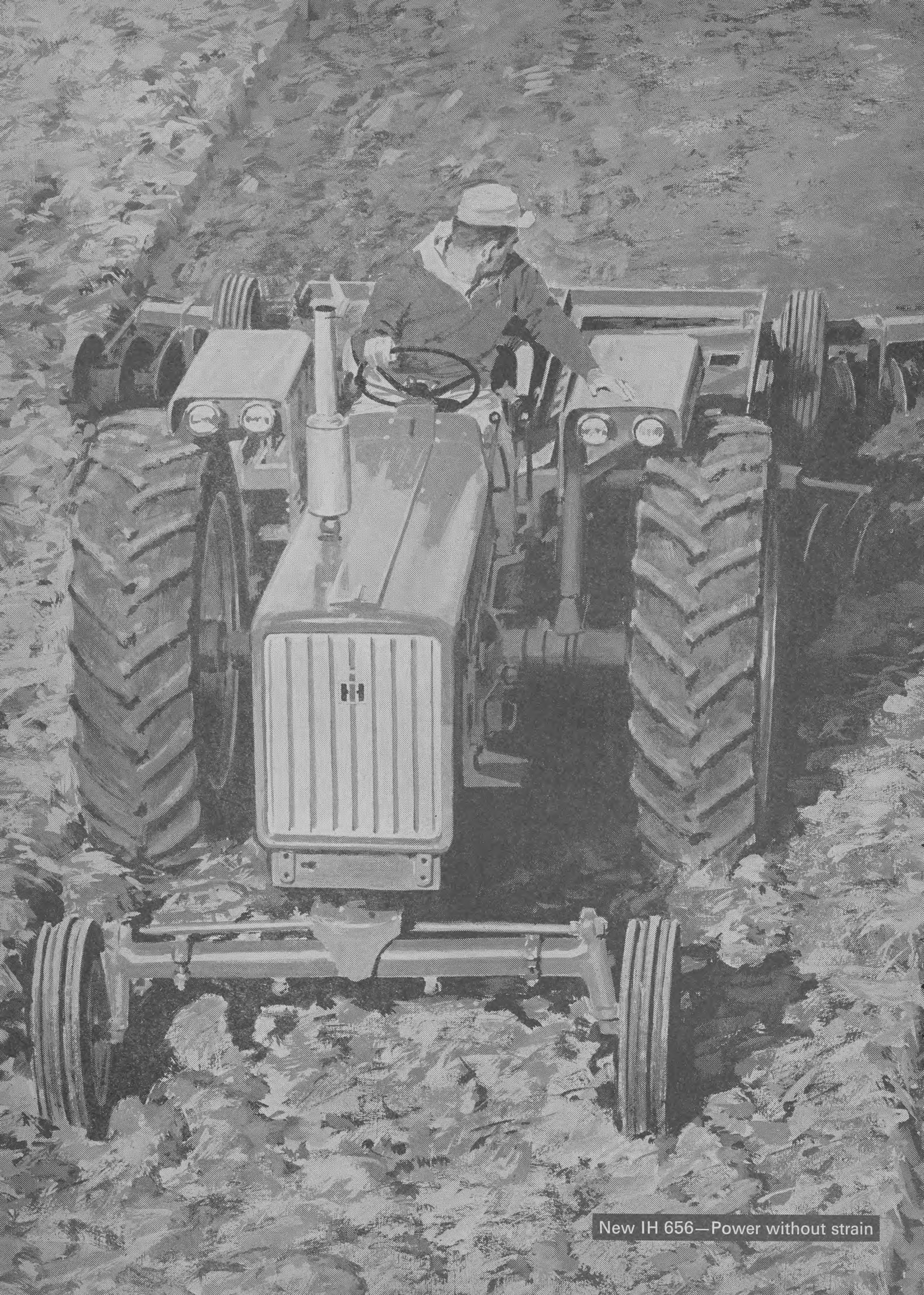
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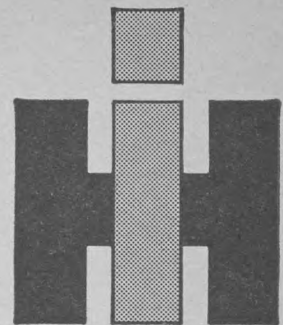
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New IH 656—Power without strain

NEW TOTAL POWER

656



Here's the most ambitious tractor in its size range. Built for the big work... great on light jobs too. New brother to now famous 706 and 806.

Expect a lot from the 656. Construction and hydraulics patterned after the big-league 706. Sixty horsepower* from a big, easy-stroking multi-range 1800 rpm engine.

Dry type air cleaner. Dyna-Life clutch. Power shift independent PTO. Hydrostatic power steering. Super deluxe seat. Shock-proof head lights. Diesel, gasoline or LPG models.

Smooth, easy shifting with new sliding gear transmission. Five speeds that, with optional Torque Amplifier, give you 10 distinct, well-spaced speeds without overlap. Available with standard or optional 2 or 3-point draft control hitch with torsion bar sensing. Tools adjust automatically, just 1/16" at a time — at 3 reactions per second.

This is a lot of tractor. And the price is *right*. Check into it with your IH dealer.

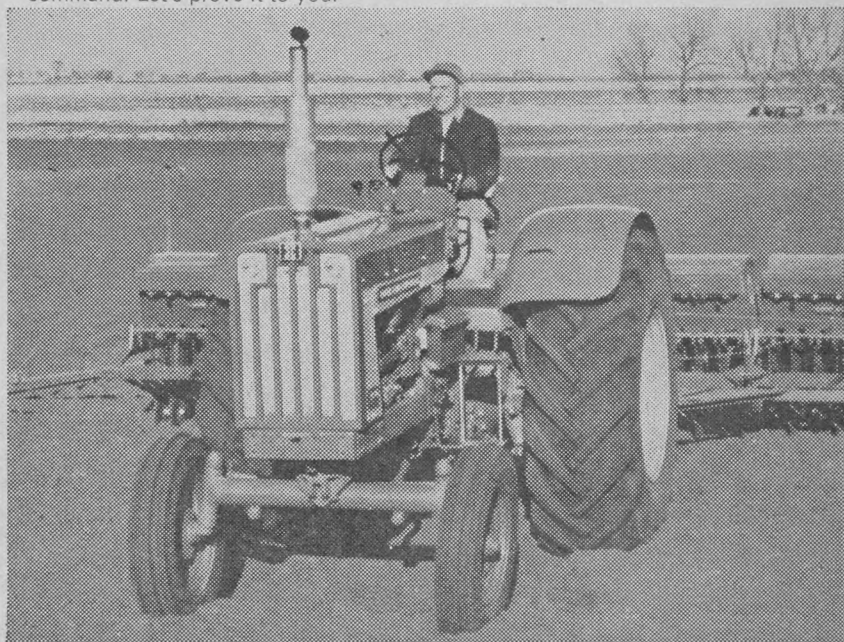
**Manufacturer's estimate*

...SIXTY HP RUNNING MATE for the Total Power big tractor champions!

Total Power IH 706. This 74 hp running mate of the 656 takes a back seat to no one. It's almost the same tractor as the mighty 806, just one notch down in power. Same Total Power advantage. Same stamina proved in working countless thousands of acres in all parts of the country, in all soil conditions, in all kinds of crops.



Total Power IH 806. With the introduction of the 806, Total Power took over on biggest farms coast to coast. Today in the 95 hp class it's Canada's most envied tractor. Never before has so much dependability been built into big farm power. Never before so much big *usable* farm power under total command. Let's prove it to you.



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INTERNATIONAL HARVESTER COMPANY OF CANADA, LIMITED, HAMILTON, CANADA



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tailored to
your income

Futures trading in live hogs will begin on the Chicago Mercantile Exchange early in 1966. The new trade will be as a result of the success of the present trade in frozen pork bellies and in cattle futures. It can provide price insurance to the industry through hedging opportunities.

Canada's consumer price index rose to 139.5 in July, up 2.4 per cent from a year ago.

A new building, whose facilities for research and diagnosis of disease and virus of animals and human beings are matched by only one other institution in North America, has been opened at the Ontario Veterinary College, Guelph. A \$2 million structure, it houses poultry pathology, wildlife diseases and virus research divisions. Isolation quarters have entrance corridors, "shower" cubicles, and a unique system of ventilation and sewage.

A new wildlife management area near Langruth and a game bird refuge in the interlake country have been established by the Manitoba Government.

Purebred sheep registrations in Canada fell to 8,610 in 1964, a 27 per cent drop from 1960. Gains were made by the heavy fleece breeds—Corriedale, Cotswold, Leicester and

Lincoln—and by the Dorsets whose early lambing allows producers to get high early season prices.

The cost of student instruction at the new College of Veterinary Medicine in Saskatoon will be shared by the four Western provinces on the basis of the number of students enrolled from each.

The 35,000 cows on test under Ontario's Dairy Herd Improvement Association program averaged 10,407 lb. of milk and 380 lb. of fat compared to an average of 8,844 lb. of milk and 313 lb. of fat for the preceding 10 years. Average herd size increased from 18 to 27 cows.

A traveling exhibit of 20 Canadian Holsteins is being exhibited through France to acquaint dairy farmers there with Canadian dairy cattle in hopes of building a new market for this country's breeding stock. The cattle, which were purchased by the Canada Department of Agriculture for the trip, will be sold in November in France.

Researchers are finding that lush stands of forages or crops do not necessarily use much more water than do sparse stands. For instance, nitrogen fertilizers applied to irrigated grass in southern Alberta gave a fourfold increase in yield of hay

but the water requirement of the crop was only slightly increased. Soil specialist K. K. Krogman of Lethbridge says a heavy crop shades the soil, reducing water loss from the soil surface. Heavy crops also promote better water infiltration reducing runoff loss. He sums up that crops make better use of water where soil fertility is high and that a bumper crop makes the best use of available water.

Fifteen Holsteins of this country's most popular bloodlines have been purchased for shipment to Italy to one of Europe's most prominent Holstein herds.

Farmstead mechanization equipment and materials will be on display in Regina and Saskatoon at the "Mexabitions" to be held there. Display subjects in these shows organized by the Saskatchewan Department of Agriculture will include machines for handling farm materials such as feed, wastes, livestock products and chemicals.

Loans approved under the Farm Credit Act during the fiscal year ending March 31, 1965, reached a new peak of \$154,800,000, up 43 per cent from the preceding year. The number of loans, 10,142, was a 17 per cent increase. Loans under

the Farm Machinery Syndicates Credit Act totaled \$215,000 for the 22 syndicates serving 81 farmer members.

Farmers in the United States lend themselves and their farm co-ops \$6 billion a year through the Farm Credit System developed over the past 50 years. The U.S. Government put up the money to start the system and farmers over the years have bought over ownership and control.

A 213-page history of the Shuswap Okanagan Dairy Industries Co-operative Association tracing the first 40 years of the organization has been published by that group.

Tenders have been called for construction of Expo's Agricultural Pavilion. The 7-acre site will be the largest exhibit at Expo.

Premiers of the three prairie provinces have formed the Prairie Economic Council to consider such matters of common interest as the marketing of farm products.

A half-million-dollar flood control program involving 20 conservation and development authorities in Saskatchewan as well as the Department of Agriculture there and ARDA is under way. The work in-

(Please turn to page 53)

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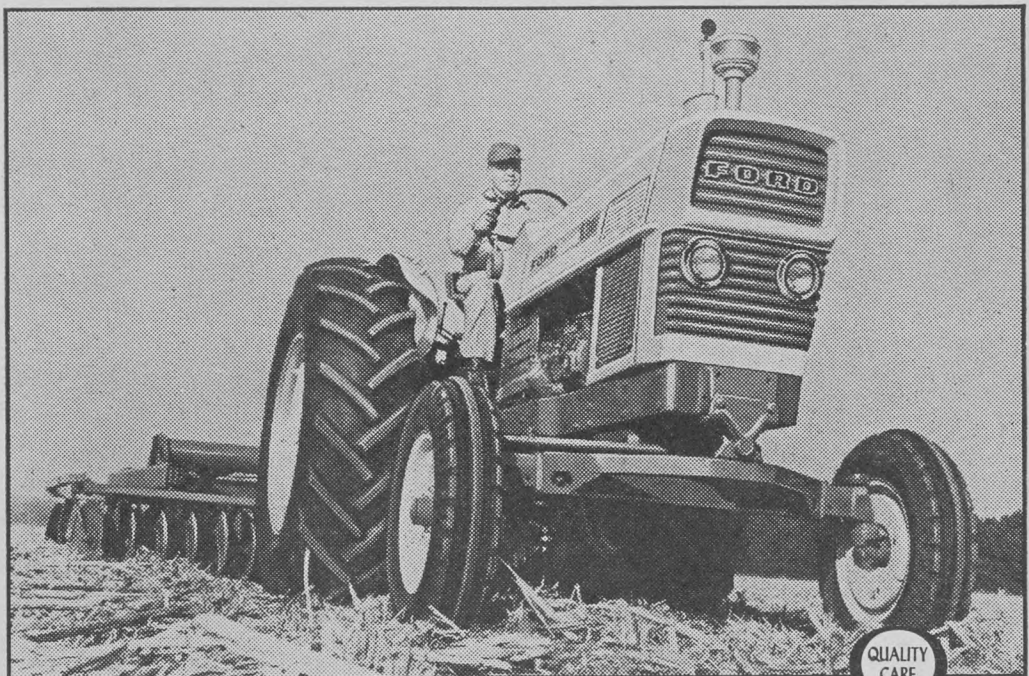
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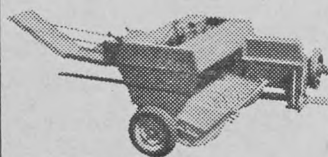
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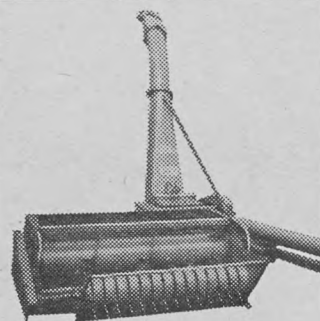


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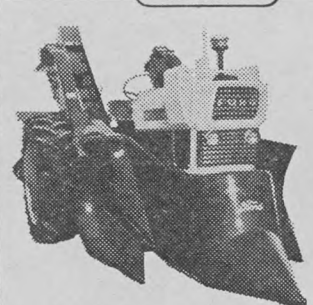
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GUIDE POSTS

UP-TO-DATE
FARM MARKET
FORECASTS

WHEAT EXPORTS will only be limited by the facilities for moving the grain out of Canada. Farmers can help by making sure they take up quotas as they are opened. This makes possible most efficient use of elevators and rolling stock.

AMPLE FEED GRAIN supplies in the Prairies will meet demands from Eastern Canada. However, this feed grain will have to compete with wheat for elevator space as well as for railway and lake shipping. Eastern farmers will either have to place advance orders or anticipate that feed handlers in the East can guess their requirements accurately and get the grain moving before freeze-up.

FARM COSTS continue to rise and the trend will continue. Wages, along with such equipment and materials as fertilizer and petroleum products are the main production items showing increases. At the same time the farm cost of living is rising at least as fast as that in the cities.

RECORD CATTLE NUMBERS in Canada result from further growth in beef cattle production. What's more this will continue since the big jump is to be found in the number of beef cows.

FED CATTLE prices will slip \$1 to \$2 from the high summer level this fall as heavier supplies both here and south of the border come on the market. However, prices should then hold fairly steady.

FEEDER CATTLE will meet strong demand both in Canada and the U.S. this fall, with calves getting the biggest play. Yearlings will sell close to the fed cattle price level with calves probably a cent or more higher.

MILK PRODUCTION shows a slight downward trend and can be expected to continue in this direction as numbers of dairy cows and heifers at mid-year were again smaller than the year before.

HEAVY EARLY TURKEY SUPPLIES will give Thanksgiving shoppers something to be thankful about, as prices will be down a bit. However, heavy October sales could cause a much firmer Christmas market.

BROILER CHICKENS will continue to be a "best buy" for consumers as heavy summer chick placements come forward for eating in the next month or two.



"Let's talk FERTILIZER"

by Phil Parish, P. Ag., NORTHWEST BRAND FERTILIZERS

Bumper crops and empty bins. As contradictory as this may sound, that is the situation that could develop in the Prairie Provinces. Such a situation does forecast the need for a good fertilizer program. Why? First, because bumper crops require large amounts of nitrogen for the decomposition of heavy stands of straw that must be converted to humus. Second, empty bins resulting from massive export grain sales must be refilled and fertilizer will help you do the job. Third, dollars from this year's crop can be multiplied by investing a portion of them in fertilizer for your 1966 crop.

The availability of soil nitrogen is very important for conversion of stubble to organic matter in the soil. Because of the heavier than average stubble produced this year lack of available soil nitrogen next spring is likely to be a serious problem. However, by applying Nitro-Cubes to stubble this fall, stubble decomposition can be hastened and nitrogen can be built up in the soil to minimize fertilizer rates required next spring, thereby reducing the spring workload. Ammonium Nitrate applied this fall will remain in the soil and may leach away only in cases of heavy rainfall.

When planting medium to heavy stubble back to grain, 100 to 150 lbs. of Nitro-Cubes should be broadcast on your stubble this fall and preferably worked into the soil. Then in the spring at planting time, in areas where stubble crops respond to phosphorus, drill in Northwest's 11-48-0 at 40 to 50 pounds per acre. There are several reasons for recommending this split application.

1. Putting on Nitro-Cubes (ammonium nitrate 33.5-0-0) before working your stubble lets the ammonium nitrate go right to work breaking the stubble down to humus.
2. Saves money by early purchase of fertilizer — fall discounts are available from your Northwest distributor.
3. Split application of ammonium nitrate broadcast in the fall and Northwest 11-48-0 in the drill attachment in the spring is the cheapest method, in both your time and your money, to fertilize another bumper crop.
4. Split application cuts the spring workload by reducing the amount of fertilizer necessary to be put through the drill attachment.
5. You avoid putting high rates of nitrogen fertilizers through your drill attachment which can be difficult in a wet spring.
6. Nitro-Cubes in the fall makes maximum use of moisture and temperature to produce a bumper crop.

To produce a profitable crop on stubble with the addition of a nitrogen fertilizer, you need a good reserve supply of moisture in the soil under dryland farming conditions. With our better than average moisture conditions this year, moisture reserves in the soil are right for stubble crops in many areas of the prairies next spring.

Fall fertilization of stubble with Nitro-Cubes gets the job done early, gives you the advantage of fall savings on fertilizer and lets you store the fertilizer in the soil, hastens the decomposition of stubble without starving your crop and reduces your spring workload. But best of all, it provides a sound investment for your production dollar — returning as much as \$3.00 for each \$1.00 invested. That is 200% per year. Contact your Agricultural Representative or nearest Canada Department of Agriculture Research Centre and discuss your program with him. Then visit your nearest Northwest distributor now so that he can have your supplies ready.



NORTHWEST BRAND FERTILIZERS

MEDICINE HAT, ALBERTA

WHY YOU SHOULD REPLACE SPARK PLUGS NOW!

Tractor spark plugs used in spring plowing have, in almost every case, begun to misfire. This misfiring usually goes unnoticed, but it costs money in wasted fuel and lost power. Here's what it amounts to . . .

If you go into harvesting or fall plowing with worn spark plugs on your tractor, your fuel dollar surely won't buy a dollar's worth of performance—it's more like 92 cents' worth! This is what hundreds of farmers found in dynamometer tests across the country. Tractors running on the same plugs longer than 250 hours were wasting 8% of their fuel and losing 7% of their power, on the average. And most of the farmers were really surprised at these losses because they hadn't noticed any rough running or loss of power. Here's the reason . . .

A tractor engine, unlike the engine in a car or truck, works under heavy load most of the time. Under load, spark plug condition becomes critical. As electrodes wear and fouling deposits accumulate on the spark plug's core nose, hidden misfiring develops. This misfiring usually starts after about 250 hours of operation (about six months on the average tractor). And it can actually account for fuel

and power losses of up to 30% and more before misfiring or power loss becomes apparent to the tractor operator.

To avoid this serious problem replace spark plugs regularly in tractor and other power equipment. Start with a set of new Champions *now*. It will cost you less than running on a set of worn plugs this fall! And you can save fuel money on all your farm engines too, by replacing spark plugs regularly. See your Champion Dealer for all your spark plug replacements.



CHAMPION SPARK PLUG COMPANY OF CANADA LIMITED, WINDSOR, ONTARIO

CHAMPIONS—FIRST CHOICE OF TRACTOR MANUFACTURERS



Inside view of the new pig pen

Liquid Feeding Hog Barn

Reporter Jim Romahn knows of at least 20 hog barns in Ontario's Waterloo County which are being remodeled, another 5 new ones being built. He describes how one man handles 1,000 hogs in the most revolutionary barn of all

FIVE YEARS AGO, big automated hog barns were as scarce as hen's teeth in Ontario's Waterloo County — this year they are becoming plentiful in this important hog area.

One of the most modern has been built by Dance Brothers at Ayr (a few miles south of Kitchener). An identical one has been built by Don Engel near Galt.

These barns have automatic liquid feeding systems — the only ones of their kind in North America.

Don's barn, which holds 1,000 hogs, measures

200 ft. by 28 ft. and has a metal roof, a flat plywood ceiling and fluorescent lighting along its length. Cross-ventilation comes from an open cornice area, and from 8 small fans and 8 large ones. These create enough suction to slam the doors shut. Metal siding is used on the outside walls, with half-inch plywood inside, and plenty of insulation between. To keep out the ground cold in winter, styrofoam siding has been placed against the concrete foundation, below the metal siding.

The pens, which measure 5 ft. by 11 ft., have wire partitions and fully slatted floors.

The concrete slats have been placed an unusual $\frac{7}{8}$ in. apart. They are 5 in. across the top, about $3\frac{1}{2}$ in. across at the bottom, 5 in. thick and 5 ft. long. Despite the wide spaces and a fully slatted floor, the pigs move around without difficulty.

The pit area, which slopes 3 in. toward each end of the barn, holds 6 months' accumulation of manure so the barn needs cleaning only twice a year. It will be cleaned by a septic tank truck and the manure spread on the land.

The most interesting aspect of the barn is the feeding equipment. About 5 minutes before the 12 daily feedings, the lights go on. The pigs don't fool easily, however, and usually refuse to budge until they hear the click which signals the start of the feeder. With this magic click, the barn turns into pandemonium, as every hog jumps up and hurries to an empty spot along the trough.

As the feed drops at each feeder it is mixed with water and flows along a trough extending both ways to the back and front of the pen. Fine-tuned adjusting results in the pigs getting the right amount of feed and water. There are no water bowls.

Two rations are fed, both from 12½-ton bins placed one on either side of the barn entrance.

Once the pigs have gone through the starter ration stage, they are put on a 17½ per cent protein ration including a high percentage of corn.

Pigs for the barn are obtained from farmers in the area (under a contract) so a minimum of disease problems will develop. They are brought to the farm at about 40 pounds and fed through to 200 pounds.

Medication for the pigs is administered through the water supply which can be turned off for particular pens so that the pigs can be taken off medication 2 weeks before they go to market. These pens are watered manually if the rest of the feed is being medicated.

As a further step in disease control, a large sign posted over the entrance forbids anyone to enter without permission. Inside the door is a small observation room from which the whole inside of the barn can be seen. No one who has been in other barns previous to visiting the new one will be allowed past this door.

Don Engel depends on the new barn for his total income. He owns another fairly new barn which he built to replace an older one that burned, but he does not plan to use it extensively, "because it is inefficient when you compare it to something like this new one."

Obsolescence figures high on Engel's list. He estimates that in 5 years his new hog barn may be no longer efficient in light of new discoveries which may occur. "In that case I would just bulldoze this one under," he predicts. "There's no point using a barn that isn't efficient."

"It only takes one man to operate this barn," he added, "and even if prices drop to the floor level, it'll pay. The same thing is going to happen to hog farming that has happened to the broiler business. It's the revolution in housing that's going to make it all possible."



As the feed drops, it is mixed with water and flows into the trough to feed pigs in two adjacent pens

Got some ready cash? Before you buy more land here is what one investment specialist has to say about off-farm investments



Herb Dow has a special interest in investment counseling for farmers [Guide photo]

Investment Securities for Farmers

by **ROGER FRY**
Field Editor

SOLD THE BEEF HERD, received a right-of-way settlement, signed an oil lease or just sold a good big bumper crop? These are just a few of the ways in which you may find yourself with a lot more cash than you need right away. Putting it to work profitably can be a problem. The traditional approach is to buy more land but this isn't such a good bet if land prices are inflated or if you might need to get the cash back again in a hurry.

The answer may be off-farm securities investment. I talked to Herb Dow, director of Houston, Willoughby and Co., Regina, Sask., about the ways in which farmers could use investment securities in their farm management program. Herb has an agricultural background and specializes in advising farmers on investment matters.

His first point was that investment advice is free. "You can get competent advice without cost or obligation from any member of the Investment Dealers' Association of Canada."

Q. Herb, why seek advice before investing?

A. To avoid mistakes. I have just finished preparing a plan for a farmer who originally tried to invest on his own. He had too much land and wanted to diversify his investment. He bought stocks for \$3 a share from a salesman who called at his farm. The salesman returned later, said the shares were now \$4.25 and going up, and offered him options on more, at \$2 per share plus \$2 when he exercised the option. However, there was a terminal date to the agreement and the farmer lost his money. He did not know then that he could have called an investment dealer and asked about the stock and the terms of the deal.

Q. Why invest in securities?

A. For most people the main purpose is to diversify income sources. Investments can be a hedge against loss of income from any one source. The different enterprises of mixed farming used to provide this protection but today's specialized farmer can be in trouble if the market for his major product falls.

Q. Are there other reasons for investing in securities?

A. Yes, to accumulate funds for some planned purpose. An off-farm income will make it easier

to transfer a farm to a son, without taking income out of the farm at a time when the younger man needs it all to build his equity. Or a farmer can prepare for the future requirements of the farm, such as funds for additional land, machinery or building replacement, or family education.

Q. Why not simply invest in the farm? This will increase the farmer's income and it is a business he is familiar with.

A. Another object of securities investment is to make the money work as hard as possible. Investing in additional farm land or machinery may not give as high a return as securities. For example, if a farmer is carrying a mortgage at a reasonable interest rate and securities are available that pay more, there would be little point in paying off the mortgage any faster than the terms called for. Of course if someone comes to me and wants to buy securities when he is paying 6½-7 per cent on a mortgage I tell him to get it paid off first.

Q. What factors affect the choice of a method to accumulate funds?

A. The income tax bracket a man is in is important. If he wants to avoid taxes we consider investments that give income in the form of capital gain and dividends rather than interest income. Age is important for we have to consider how soon inheritance taxes will have to be met, how long the investment is for, and what degree of risk can be taken. A young man can usually take more risks than an older man for the younger man has more time to recover losses.

Q. How does the farmer choose securities?

A. He looks at the record of the company. He should only buy securities which have a record to look at, so that he can assess the risk involved. I discuss the personal circumstances with the investor and we arrive at a conclusion of what his most pressing needs are. Then I suggest securities which meet these needs. The farmer should apply the same logic that he would use to assemble an outfit of equipment. The power unit is selected to do the job in mind and the rest of the equipment parcel is bought to match.

Q. Why go to an investment broker for advice?

A. Because people in our business are working in the market and we are in a position to make

comparisons between securities. We can judge among many types of securities.

Q. What is the basis of comparison?

A. Yield, coupled with an assessment of the company's capacity to pay the promised income and to return the principle at maturity. We also compare the prospects for growth if the security is being bought as a growth investment. We look at the performance of the company on the basis of its record and we also consider the opportunities for any company to do well in that particular industry. For instance, the finance field is pretty tough right now and investing in it could be compared to investing in poultry production; margins are slim and competition keen.

Q. How do you go about advising the farmer?

A. We make specific recommendations in writing, having regard for the circumstances. We provide alternatives. We try to give him an idea of the nature of the investments. He phones or writes his instructions to us.

Q. When should a person seek advice?

A. When he is planning his investment program. He should not wait until he is in a position to invest for then he will not be familiar with what he is doing.

Q. Who should invest?

A. Anyone who has money for which he does not have an immediate use. A feeder could invest his livestock capital while he is getting ready for the next lot of cattle. I can get an investment that will pay 4½ per cent on \$5,000 or more for as little as 30 days.

Q. How much would be needed to get started?

A. You can start a portfolio with \$500. For many people money comes in small amounts periodically. These people can build a program. The important thing is to get started. Anyone expecting an inheritance, or young farmers who look forward to more income as their farms build up, should begin getting experience so that they can make mature judgments when they have to manage large sums of money. Wives should do this too because often a widow's share of the estate is in cash and she should know something about getting the most income from her money. ✓

Bigger Machines Cut Costs

This grain farmer solved some of his labor problems by trading two small combines for a large one

by **CLIFF FAULKNER**

Field Editor

FARMERS ARE OFTEN accused of buying a new tractor or combine for the same reason that a woman buys a new hat — because it makes them feel better. But very few grain growers could be classed as frivolous people. Farm machines (unlike women's hats) are improving year by year, and a decision to buy is generally dictated by hard economic facts such as time, labor and operating costs.

When Carl Rovey found he was having trouble getting competent help for harvest he took a long look at the two combines and two trucks he was using to do the job. One combine was a self-propelled machine and the other was a pull-type — both had 32-inch cylinders. If he could take his crop off with a single self-propelled machine and replace the trucks with a single vehicle of larger capacity, he could eliminate the need for two extra men at harvest time and free one tractor for other work. A little investigation soon showed him that a machine with a 40-inch cylinder could do the job and save quite a bit on fuel costs too.

Carl carries the "bigger equipment, fewer trips" idea to other phases of his operation. When he built three plywood-sided forage wagons to haul his feed he greatly increased their capacity (and stability) by building box floors low to the ground. Where he used to cultivate with a 10-foot one-way, he now uses a 20-foot surflex which covers twice the acreage each trip around.

Carl Rovey and his wife, Jean, farm three sections of land 4 miles north of Richlea, Sask. Although their main crop is wheat, they raise some oats and barley and feed out about 100 hogs and 30 to 40 head of beef cattle a year.

"If we could sell all our wheat we would be straight wheat farmers," Carl explained, "but these days you have to have something over and above your wheat quota to help out. We have been quite lucky in making malting grade with our barley because this isn't really considered a barley area."

Other things that have "helped out" are a farm flock of laying hens and 3 or 4 milk cows. These ensure a supply of eggs, milk and butter for the Roveys and the one permanent man they employ, who lives on the place with his family. It also provides some cream for shipment. If meat is needed, they have a butcher in Eston slaughter a steer or a hog which is then cut up and frozen.

The Roveys are no strangers to the dairy business. Before taking over their present place from Mrs. Rovey's parents in 1944, they had a dairy farm in Arizona. Carl, who is a native of that state, met Jean when she went south to enroll at the same school his sister attended.

Their farm is operated on the basis of 1,000 acres of crop each year. In a normal season, this amounts to half crop, half summerfallow. But in a wet year such as this one, where about 250 acres are under water, the Roveys seed enough stubble land to compensate for the land lost by flooding. Most of their hay comes from roadside ditches — a feed source often overlooked by farmers. Provincial authorities are now urging that ditches be harvested, especially this year

when excess rainfall has produced a roadside crop of bonus proportions.

MODIFIED BARN FOR FEED

The hay is cut by a forage harvester and blown into a 30 ft. by 40 ft. hip-roofed barn which Carl has modified to suit his needs. First, he removed the floor of the loft and used the lumber to build four bins of varying sizes for feed barley, oats, wheat and wheat screenings. The feed grain is ground in a hammer mill located outside at the barn's south end and blown into the barn through a pipe to the roof. A swiveling metal chute under the pipe's opening enables Carl to channel each type of feed into its allotted bin. When feed is needed, it is mixed by running it together into a common outlet pipe.

The rest of the barn space, from the ground to the top of the 28 ft. roof, is filled with the chopped hay, except for a small boarded-in section in the southeast corner which contains stalls for the farm's milk cows.

One of Carl's main feed sources is a straw-chaff mixture collected in the grain fields after harvest. He obtains this mixture by cutting a piece out of the bottom of his combine's straw chopper and installing a metal shield and chute so that the straw runs into the chaff. The combine lays the straw and chaff out in small bunches which look like a line of hay bales. This is picked up by the forage harvester and wagon and stored, either in a 40 ft. by 60 ft. quonset unit or in tight circular stacks. When the quonset is pressed into service for grain storage, the farm can store 30,000 bushels.

DUGOUT WATER SUPPLY

The farm's water supply comes from a dug-out. It is piped from there to two concrete cisterns which are located between the barn and the house. The water line consists of a one-inch and a half-inch plastic pipe, wrapped together. In cold weather, warmed anti-freeze can be pumped through the half-inch line to thaw any part of the system which has become frozen.

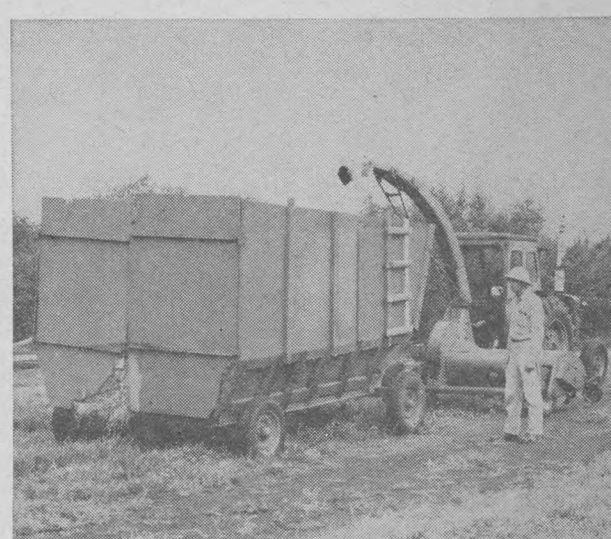
Carl has a well-equipped machine shop where he has converted many spare parts and pieces of material into useable equipment such as the forage wagons, or the high metal frames for his fuel tanks which he made from an old swather frame. He also has a surveyor's transit for laying out ditches which his training as an irrigation engineer enables him to use with good effect.

Most of the land at The Rovey Wheat Acres, as their place is called, gets an annual treatment of 11-48-0 at about 25 lb. to the acre. Carl finds that the fertilizer speeds crop maturity to the point where they gain an extra week in the vital growing season. It is because of this faster growth rate that they are able to delay seeding for a few days to let the weeds come up so they can be cultivated.

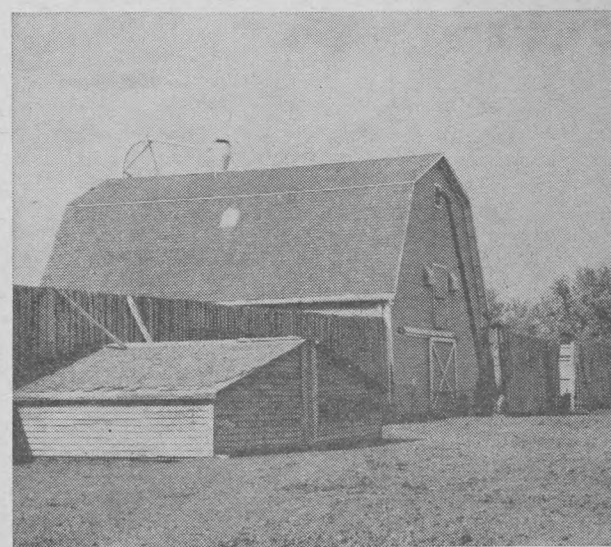
"Because the new machines allow us to prepare land more quickly we don't have to turn a wheel around here until May 1," said Carl. "Then our fertilizer applications, and new grain varieties that the research people have developed, allow us to catch up on that lost week." ✓



[Guide photos]
Carl Rovey mixes his feeding ration by running the components through a common outlet pipe



Carl converted spare wheels, scrap metal and plywood into low-bottom forage wagons like this



Chopped hay blower at north end, conveyor for ground feed at south end of converted feed barn

Charolais Are Coming

The startling Canadian program of importing Charolais from France will near fulfilment with the arrival of the first cattle next month. Canadian Cattlemen editor Frank Jacobs traveled to France with this country's buyers before writing this report

IT IS JUST OVER A quarter of a century ago that some Charolais cattle from France were shipped to Mexico. From that seed base of about 30 head, these white cattle have increased in numbers, especially by crossing on other breeds, so that by the early 60's, there were several thousand of them in North America.

The owners of these cattle, like all breeders of all breeds, were anxious to improve their stock, and the best source for improved seed stock was France, the home of the breed. But not since early colonial days had cattle been permitted to move from the continent to Canada. How could one obtain cattle from France with governments of all countries in North America prohibiting their importation?

Several devious attempts to get new French blood have been made with considerable success, but at tremendous expense. For example, French bulls were shipped to the Bahamas and there mated to American cows. Four male progeny of these matings were then shipped to Canada and eventually reached the United States.

Another scheme involved the setting up of breeding farms on the tiny islands of St. Pierre and Miquelon (which still belong to France) in the Gulf of St. Lawrence. Two companies were set up, one financed by American capital, the other largely by Canadian and French capital. The importations were made and the Charolais are actually on the islands now, waiting until such time as they can be admitted to the Canadian mainland.

Another attempt involves the legal importation of semen from French bulls under extreme veterinary control. (Many people think that illegal importation of semen has already occurred—how else, they wonder, could such notable improvements have occurred in some herds?) Just as this semen-import scheme was being lined up and had been approved by the American department of agriculture, Canada's Minister of Agriculture, the Hon. Harry Hays, made an announcement that shook the beef cattle world. His department would allow the importation of about 100 head of Charolais cattle. Mr. Hays made his startling revelation last January and immediately Canadian breeders began to plan how they would import the big white French cattle. In May, 67 Canadians received import licenses to bring in 124 cattle from Europe.

Mr. Hays' scheme involved strict inspection and control and a multitude of tests. Animals had to be inspected and tested on French farms by Canadian veterinarians during the summer. Then the animals moved to Brest for a full month of testing during September. After that, they go aboard ship and travel directly to an island quarantine station in the St. Lawrence River, Grosse Ile. There they spend the winter. Next

April they will be released to Canadian farms, but must remain in quarantine on the farms for 3 months. After that they may move freely.

Since foot-and-mouth disease is controlled in France by vaccinating all cattle over 7 months of age, and since vaccinated cattle react positively to tests, it was necessary for the Canadians to buy unvaccinated calves. Most of the buying was done in June, of February, March and April calves. Prices ranged from around \$800 up to \$8,000, with most of the heifers costing about \$1,000 and bulls running between \$2,000 and \$3,000.

COMPETITION KEEN

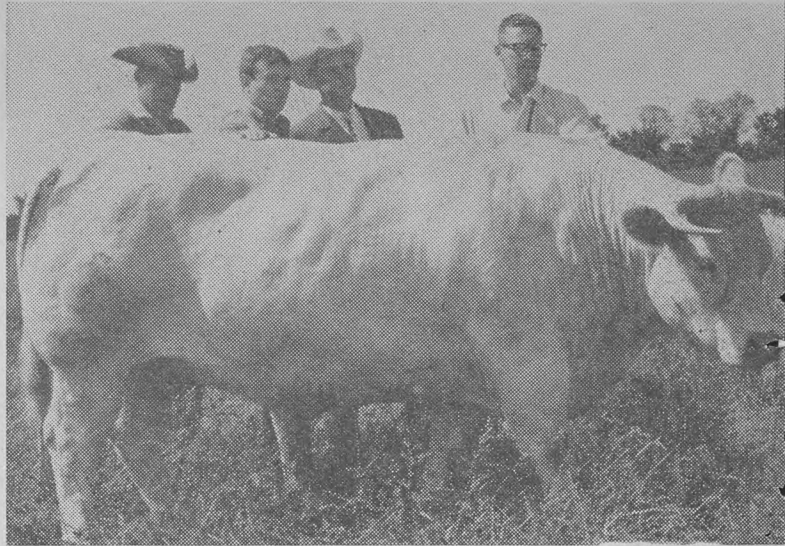
World interest in Charolais recently has become extremely keen. When the Canadians got there they found themselves bumping into English and Irish buying parties and also American. Buyers from South America and from other European countries had been active all winter and spring.

The Canadians were met by French buyers who immediately undertook to drive them around the country looking at cattle. The procedure was for the buyers to take verbal options on cattle they liked, and the sellers agreed to honor the options for a week without any down payment. However, by the time Canadians had been there a few days they realized that the prices asked were too high. "We had to start all over again, cancelling out our first options," one of the buyers related.

Since top-notch Charolais had been selling in the U.S. around the \$10,000 mark, and since it was generally conceded that good French cattle would be better than anything on this continent, the value of a French Charolais laid down in Canada seemed to be just about the cost of a new Cadillac. Accordingly there was quite a scramble for the import permits. A Canadian Press story reports active buying of French cattle by Americans via the Canadian permit route. Value to a Canadian on such a deal is placed at \$8,000 per permit by CP. With the animals costing close to \$2,000 on French farms, and with the additional costs and risks taking care of at least another \$1,000, the actual laid-down price of the cattle anywhere certainly could not be cheap. And, since the Canadian Charolais Association recognizes A.I., the demand for additional bulls is going to fall off sharply once a half dozen good French bulls are in the country. On the other hand, there will be a continuing demand for females for a long time, but at what price it is hard to say.

BIGGER, MORE MUSCULAR

The French Charolais that one sees in France are certainly bigger and more muscular than the Canadian or American beef cattle on ranches and farms here. The homeland of the breed has a



Canadian buyers in France flanking French breeder Compté Adrien de Moustiers (second from left) are John Rudiger, Cutknife, Sask., Harold Biensch, Neilburg, Sask., and Ron Rouse, Stettler, Alta.

lush summer grass season, followed by a somewhat dry fall, after which the cattle are stabled and stall fed through the winter.

They are perhaps more uniform in type than British breeds but they are variable and there seem to be two distinct types. The type most favored by Canadian breeders is somewhat rough, with prominent hooks, an open couple and a high tail-head. The other type was more like a show-ring animal—compact, smooth in the tail-head, and very straight in the leg. Many of these had a suggestion, and in some instances a real development, of the "double muscle" in the thigh—the French *coulard*. The *coulard* is both a defect and something to be prized. If you are a finisher of cattle—or a butcher—you'll like the *coulard* because you get so much more hindquarter. But the breeders avoid it because there seem to be several undesirable characteristics affecting reproduction associated with it.

American cattlemen were deeply concerned about the Canadian imports. The American National Cattlemen's Association, and many of its affiliated state organizations, passed resolutions condemning the Canadian government's action. They also requested the U.S. government to "close the border" to Canadian cattle of all kinds because of the "threat" imposed by the French imports.

The United States Department of Agriculture, however, had been fully informed of the procedures of the Canadian government, and had been invited by the Canadians to observe all phases of the import program. The USDA was satisfied that the Canadian imports would not be hazardous to the health of the American cattle industry and they indicated that no special changes re the Canadian cattle trade would be made. American cattle associations then stated that, if their government would not close the Canadian border, they would request the governments of border states to achieve the same end by quarantining all cattle coming from Canada.

While this would not act as a complete barrier, it would effectively stop the normal Canada-U.S. export trade because of the cost and inconvenience of the quarantine. Meanwhile, the USDA had okayed a plan to import semen from France. The danger of disease coming in with semen is at least as great as with live cattle, but American cattlemen remain strangely silent about this program.

LED BY THE NOSE

During the height of the controversy, Fred Newcombe, secretary of the Canadian Cattlemen's Association (the former Beef Council) flew down to Billings for the annual meeting of the Montana Stock Growers' Association. Attending this meeting was Brooks Keogh of North Dakota, president of the American National Cattlemen's Association. The U.S. cattlemen told Newcombe that they had confidence in both their own USDA and also in Canadian authorities, but if they gave the green light to (Please turn to page 53)

Aim for a 20,000-lb. Herd Average

It's within the reach of many dairymen, says Dr. Bruce Poulton. Here are a few factors involved in reaching it

by PETER LEWINGTON

Field Editor

A TEST GROUP of 10 Holstein cows at the University of Maine averaged 19,600 pounds of milk last year. Dr. Bruce Poulton of the Animal Science Department there has his eyes set on a 20,000-pound herd average and firmly believes that this is a realistic target for many herds. Says Dr. Poulton, "While many herds are capable of having 20,000-pound averages, dairymen need to adjust their feeding levels to obtain them. Some cows are being underfed. On the other hand there are large numbers of herds which will not reach averages this high; in fact these

dairymen could go broke trying to feed for this production level.

"The attainment of a 20,000-pound herd average requires first that the individual dairyman take an inventory of the cow quality in his own herd, and then attempt to obtain high production from those cows which are capable of it."

While Dr. Poulton wants high production, he doesn't want it regardless of cost. He wants to select from the efficient cows.

In his experimental work, all the nutrients which go into the cows are weighed and all the milk and



[Guide photos]
Herdsman Philip Young at the University of Maine weighs all the feed which is offered to high milk producers in a test group of Holsteins

all the body wastes are also weighed. Samples of hay and silage are taken daily and analyzed on a weekly basis. Feces samples are taken twice daily for 5 days during the lactation to accurately determine the efficiency of each cow's digestive system.

These input-output studies show a wide variation in the ability of cows to convert feed into milk. Dr. Poulton is critical of the dairy industry for virtually ignoring this characteristic as a selection tool. Selection for efficient feed conversion has long been essential for both swine and poultry breeders and producers.

The Maine studies show that cows peak in production about the 26th day after calving. Dr. Poulton feeds cows concentrate prior to calving and the cows peak at an average of 96.6 pounds a day. The day they calve they are up to 50 per cent of the estimated ration for peak production. This is further boosted to 65-75 per cent of the peak intake by the time the cow enters the milking line. It occurs under approximately free-choice feeding.

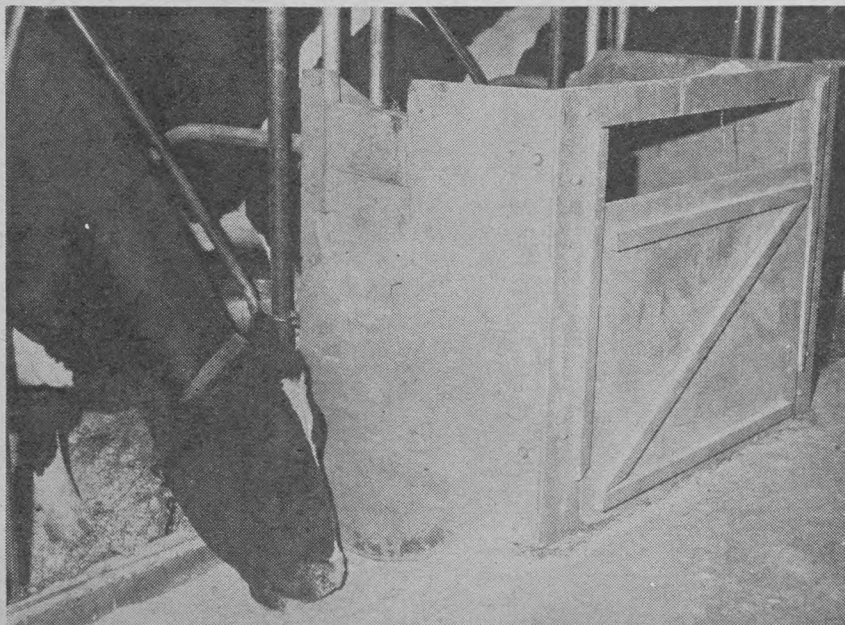
During the first 3 months of lactation, the cows select two-thirds of their energy intake from concentrates and one-third from forages. Gradually the concentrate intake dwindles and the forage intake rises to 50 per cent.

"Even with cows producing at high levels it is still possible to overfeed concentrates in the later stages of lactation," says Dr. Poulton. "I have a strong feeling that even with cows of high quality, free-choice concentrate feeding will be somewhat wasted. The two most frequent mistakes in dairy cattle feeding are underfeeding concentrates early in

the lactation and overfeeding in late lactation. Many dairymen justify the practice of overfeeding in late lactation on the basis that they are fleshing cows for their next lactation. Research has clearly shown that the practice of converting feed energy to carcass fat and then in turn converting this carcass fat to milk energy is a very inefficient process and should be avoided. This extra concentrate would be much better fed during the latter part of the dry period and during the early part of the lactation."

Dr. Poulton is enthusiastic about high concentrate feeding levels—at the right time. However, he doesn't get carried away with this to the detriment of forage feeding.

"I take a dim view," he says, "of the recommendation of some of my associates that in order to obtain high concentrate intake it is necessary to restrict forage feeding. There is no evidence in any of our work to support this. The regulation of forage intake is best left to the cow. As we move ahead there are undoubtedly things that we will be doing to improve the energy value of our forages. In addition to breeding better varieties and developing better harvesting methods there are also on the horizon new ways of treating forage both mechanically and chemically that will in all probability improve their digestibility. If we can sufficiently improve our forages so that they more nearly approach concentrates as energy sources, then forages will play a greater role in the rations of our high-producing cows of tomorrow. Certainly, we know that good quality forage can supply at least half of the nutrients required in a 20,000-pound herd." ✓



Manger boxes make it simple to measure exact feed intake of individual cows

How to Grow More Forage

by **CLIFF FAULKNER**

Field Editor

CAN THE CATTLE industry keep on expanding and not run into a feed shortage? Yes, says Dr. Dave Heinrichs, Swift Current Experimental Farm — IF farmers and ranchers will only make use of new grass and legume varieties and then manage them for high and continuing production.

Between 1952 and 1964, the cattle population of Canada increased about 34 per cent. In the Prairies it increased 68 per cent, and in Saskatchewan alone, it increased 60 per cent during this same period.

"In my view, cattle numbers could be doubled in Saskatchewan in the next decade and we could still feed our animals better than they are being fed today," Dr. Heinrichs told Country Guide. "And we could do this without sacrificing one bushel of our grain production."

Here are 11 steps toward a paying forage program:

REPLACE NATIVE GRASS WITH GRASS-LEGUME PASTURES

Experiments at Swift Current over the past 20 years have clearly shown that seeded grass-alfalfa pastures will carry from three to four times as many animals as *good* native pastures. Yet you can drive through Saskatchewan in any direction and come upon pasture after pasture that is little more than a standing paddock for animals!

"These over-used pastures have come into their present state over a long period of time," Dave Heinrichs explained. "A series of dry years has forced overgrazing on them so that all the valuable native grasses such as fescues, native wheatgrasses and speargrasses have been replaced by low-yielding sedges and pasture sage. Cultivated native grassland should be seeded down to higher-producing crops such as Russian wild ryegrass - alfalfa, crested wheatgrass - alfalfa and brome-alfalfa mixtures.

"You cannot afford to hang onto your native pasture if it can be cultivated, or to keep grazing worn-out cultivated pasture."

RETURN MARGINAL GRAIN LAND TO GRASS

Cereal grains are still being grown on land that is excessively hilly or sandy. Such land will bring you more profit and less work if it is converted to perennial forage crops for hay and pasture. Researchers have compared the production of oats and a brome-crested wheatgrass-alfalfa mixture over a 12-year period. They found that the yield of dry matter was identical for the annual and perennial crops—namely, one ton per acre. But the *cost* of producing the oats was much higher. This was on level land. Think how much greater an advantage a grass-legume crop is on sandy, rolling land.

MAKE BETTER USE OF SLOUGHS AND MEADOWS

Many sloughs and meadows that have become unproductive through the years could become valuable hay or pasture sources if sown to the right grasses. Reed canary grass can be seeded there in either August or late October, after the land has become dry enough to work.

"We have a slough on the Experimental Farm that we seeded in 1939," said Dr. Heinrichs. "With a little fertilizer applied in the fall it still produces about 3 tons of hay per acre."

If your land contains a lot of buckbrush or rosebrush it is a good indication that a brome-alfalfa crop will do very well there.

IRRIGATE FOR WINTER FEED

Do not overlook small (or large) areas of your land that could be irrigated without too much trouble. Just 20 acres of irrigated land can assure you of a hay crop of 60 to 80 tons. This would go a long way toward carrying you through

the winter. If your farm has a good water supply, consider the possibilities of running it down onto some of your lower fields. For rougher land, there are several sprinkler irrigation systems available.

MAKE MORE USE OF STRAW AND STUBBLE FIELDS

Stubble land will provide ideal grazing for cattle in the fall if you arrange your fencing so that it can be used. There is always a certain amount of waste from your combine operations. If rains come, the aftermath growth will provide green pasture when all others are brown.

"With the much greater use of grain in livestock feeding I wonder if we make full use of our straw?" Dr. Heinrichs said. "It is better roughage than the ground-up poplar trees some commercial feeders are turning to as a rumen filler."

HAVE CONFIDENCE IN YOUR CROP

Don't underrate the value of forage crops because of unfavorable experiences in the past. Research and experience over the past 30 years have overcome the reasons for these failures. Grasses and legumes can now be established even in drier areas, without much more chance of failure than with wheat and oats.

PREPARE A GOOD SEEDBED

Prepare your seedbed for the spring seeding of grasses and legumes with *greater* care than you use for wheat. A firm seedbed is a must for these small-seeded crops so that shallow seeding can be assured. On the Prairies, forage crops should be seeded about 3/4-inch deep and definitely not deeper than 1 1/2 inches. There are still too many failures due to deep seeding. If the land to be seeded is summerfallow, cultivation should be shallow and the land should be packed before seeding. You can do this by using either a packer or a harrow.

SEEDING

If your land is firm, a common drill or press drill may be used for seeding in the ordinary way. But if the land is soft, attach depth controls to the drill discs so the discs will ride at a uniformly shallow depth. Every livestock farm should have a drill with depth controls fitted to the discs.

"No general packing should be done after the drill has passed over the ground," stated Dr. Heinrichs. "Even the chains should be taken off. Leave the little furrows left by the drill so the seedlings coming up in them will have protection from the wind. Extra packing also places more soil over the seed so that it is buried too deeply."

If you are seeding stubble land in the spring, cultivate and pack it like summerfallow before seeding, or spray it with 2,4-D before, or immediately after, seeding. Your late fall seeding should always be done directly into stubble without any cultivation. This way, the stubble will trap snow to provide moisture for early spring germination.

SPRAYING FOR WEEDS

In newly established grass - alfalfa mixtures, 2,4-D can be used at a rate of about 10 ounces in 15 gallons of water per acre. It is important that you use *more water* than you normally use with 2,4-D on grain crops. Alfalfa *should not* be sprayed when it is just coming through the ground, or when it is *over 4 inches high*. Spray at the first trifoliate leaf stage.

If weeds are bad in an old stand of alfalfa, spray the crop very early when alfalfa growth has barely started.

Grasses alone, however, can be sprayed with 2,4-D at the same strength you use on your cereals. Spray after the grass has developed beyond the three-leaf stage.

THE NEW FORAGE VARIETIES

Plant breeders have made big advances in producing forage varieties that are adapted to the cold, dry climate of the Prairies. The lack of a hardy legume has now been overcome with the development of such alfalfas as **Rambler** and **Beaver**. Developed at Swift Current, **Rambler** is growing well on dryland, even through very dry periods. **Beaver**, which was developed at Lethbridge and Saskatoon, is doing very well on irrigated land where bacterial wilt is a problem. However, in southern Saskatchewan, **Rambler** appears to do best of all (even under irrigation) because of its superior winter hardiness.

The new crested wheatgrass varieties, **Summit** and **Nordan**, are now recommended in place of **Fairway** because they are leafier, taller and slightly more productive. **Sawki**, a new variety of Russian wild ryegrass developed at Swift Current, is more uniform and yields more than the commercial strains. Tests at Swift Current and Manyberries have shown that Russian wild ryegrass cannot be beaten as a dryland pasture grass in the Brown and Dark Brown soil zones of the Prairies. It has been found to yield nearly four times as much animal liveweight gain per acre than adjacent native grassland.

"We have found intermediate wheatgrass very useful for hay in mixture with **Rambler** alfalfa," Dr. Heinrichs said. "This grass is large-seeded, easy to establish and yields more than most grasses in the first 2 years."

Chief is a new variety of intermediate wheatgrass developed recently at Saskatoon. There are also new varieties of brome-grass on the market today which are better than the old ones. **Carlton**, developed by Dr. R. P. Knowles at Saskatoon, should replace **Northern Commercial**. On irrigated land in Eastern Canada, an Ottawa selection called **Redpatch** appears to do very well.

There are other grasses, such as slender wheatgrass and tall wheatgrass which have a special role to play in the utilization of saline soils that occur throughout the Prairies.

AFRAID OF BLOAT?

Grass-alfalfa mixtures are the key to increased forage production in Alberta, Saskatchewan and Manitoba, but alfalfa does bring certain problems with it, namely bloat. To minimize this hazard the alfalfa component in your pasture should be no more than one-third of the total. *One pound* of alfalfa is now the recommended quantity for a pasture mixture.

An important management factor is to keep your animals on the pasture. Once they are in do not move them from one mixture to another. If the alfalfa component seems to be very heavy cut the field for hay, or delay grazing until July when the alfalfa is well into the flowering stage. At this stage the alfalfa is getting quite fibrous and is therefore less liable to cause bloat.

"If you are really afraid of bloat use a straight grass pasture and fertilize it so as to increase production when it becomes sodbound," Dr. Heinrichs concluded. "In one of our tests, 120 pounds of ammonium nitrate (33.5-0-0) per acre doubled the yield of crested wheatgrass over a 4-year period."

V

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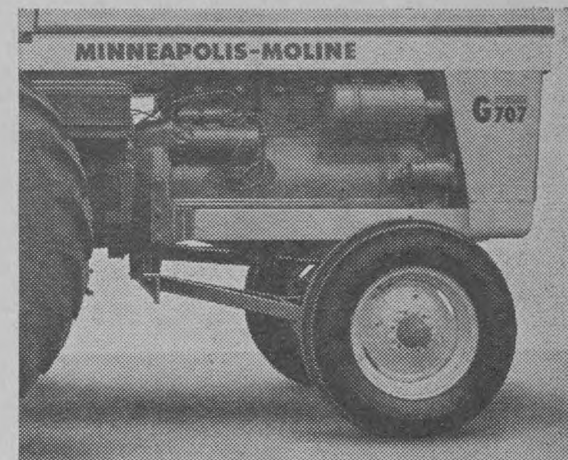
The G-707 puts out power at an easy-going 1600 rpm. As load increases, engine torque climbs smoothly to pull you through the tough spot without down-shifting, without stalling. And, because the G-707 engine turns out working power at lower rpm than other tractors in its class, you get "More Hours of Power . . . More Years of Work".

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easy-to-service dry air cleaner; an adjustable clevis drawbar; and many other improvements. A new Category II three-point hitch with quick-hitch attachment is also available as optional equipment.

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The Road to Ailsa Craig

by **PETER LEWINGTON**

Field Editor

IT'S A LONG ROAD to Ailsa Craig, Ont. — if you travel in the footsteps of Henry De Vlugt and his wife Doris.

De Vlugt served in the Dutch army in Java from 1934 until his capture by the Japanese in 1941. Mrs. De Vlugt was interned for the next 4½ years and her husband was sent, via Singapore, to join a forced labor gang building the infamous Burma railroad. He recalls, with wry amusement, that he subsequently received a cheque for \$60 from the British Government for his work in constructing a railway most widely known for the terrible toll of life which went into its making.

Even then De Vlugt had the quiet determination which is now helping him to carve a stake in Canada; he managed to elude his Japanese captors and with the aid of the Chinese reached the Philippines. For 6 weeks he worked on a tea plantation in a remote mountain valley until the Japanese again caught up with him. This time they took no chances and for the next 4½ months De Vlugt worked underground in a Japanese tin mine — he saw daylight for just 1 day during the whole period.

Following V-J Day De Vlugt returned to Java and eventually came full circle back to Holland in



The De Vlugts say "We have been lucky so far"; it is also Canada's fortune to have such fine immigrants [Guide photos]

It was a long adventurous road with a very satisfying ending for this immigrant family

1951. "But there you open the door and look your neighbor in the face, and so we came to Canada. We have had luck so far," he says. The "luck" is in reality the spirit which enabled him to survive the Burma railroad and subsequent adventures.

The De Vlugts worked out on other farms, then rented land and finally were able to buy 100 acres. Profits from cash crops during the first few years enabled them to make the transition to a dairy farm. A good Guernsey herd has been built up; 30 cows are now in milk. Pasture has to be rented for the yearlings and 2-year-olds.

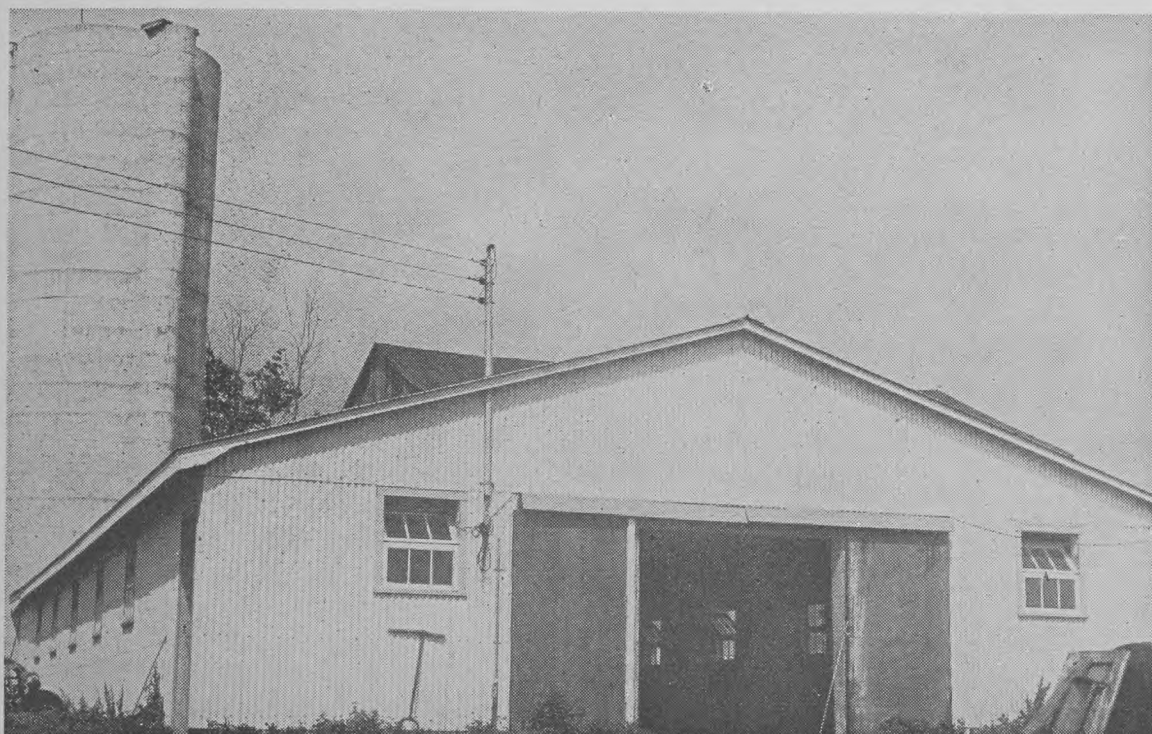
To make the manufacturing milk market profitable, the De Vlugts try to keep feed costs to the

minimum by strip grazing the pasture and by feeding corn silage the year round.

De Vlugt has 23 acres of corn so that he has plenty for his 14 ft. by 40 ft. silo. The rest is picked. He is able to grow enough feed for his herd, with the exception of some concentrate.

In further steps of progress, he has built a herd of seven sows and sells weaner pigs. He has built a new and well-equipped barn as well, and finally, he has restored the farmhouse, which had degenerated into service as a granary.

"We like Canada," says De Vlugt, with a serene smile. Rural Canada in its turn, likes immigrants of this caliber. It has been a long road from Java to Ailsa Craig. V

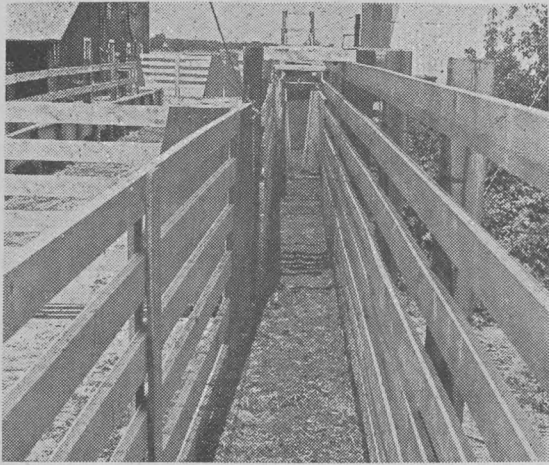


Among the tangible assets of the De Vlugt family are the new barn for the cows and a concrete silo



De Vlugt with his Canadian-born daughter Joanna

Livestock



A sorting alley, a squeeze and a set of scales are all in readiness for another batch of western calves

[Guide photo]

Check List for Feeders

POTENTIAL FEEDLOT profits hinge on many factors but in the view of Lawrence Markusse, of Wyoming, Ont., a key one is the system used for acclimatizing purchased calves or yearlings to the feedlot. His system involves common sense, good management and a program of prevention rather than cure.

Markusse is on guard against possible cases of shipping fever. Rather than treating individual animals as they succumb to the disease after the

stress of traveling from the West, he medicates the water as a routine precaution. Sulfamethazine is added to the drinking water for the first 2 days the cattle are in the feedlot; no medication is given for the 3rd and 4th days and then medication is repeated on the 5th and 6th days. "This has drastically reduced outbreaks of shipping fever," Markusse explains. "Only occasionally do I need to give an individual animal a needle!"

The change to full corn feeding is done gradually. "Hay," says Markusse, "involves too much work, it's too expensive and it ties up too many acres—but it is the best feed for cattle for the first couple of weeks. Poor, dry hay keeps the rumen working and minimizes digestive problems."

Markusse believes that the combination of a good fence, a paved area, a sorting alley, a squeeze and a set of scales is essential.

After the steers have been in the feedlot for 3 weeks the danger of shipping fever is over and they will also be used to their new rations. The cattle are then run through the squeeze and given the full treatment:

- Ruelene is poured on to eliminate lice and warble infestations.
- Each steer is given an injection of 3 cc. of vitamins A and D.
- Yearlings are implanted with three growth-stimulating pellets.

With a well-designed handling area, hundreds of cattle can be swiftly treated. The cost of each of these routine measures is quite small; the potential benefits which accrue when a proven system is followed are large.—P.L. ✓

Requiem for a Dead Bull

New methods of storing semen may multiply benefits of A.I. breeding

IT MAY BECOME routine procedure to store enough semen for some 20,000 services and then send the young bull to market. This is the implication of work which originated in France and has been further explored in Japan, the United States and Ontario.

In the past, some superior sires have not been recognized until too late; valuable bulls have been slaughtered without leaving a reserve of semen. Conversely, some bulls with an attractive pedigree have been used to excess—until the undesirable traits in their progeny became apparent.

The practice of storing frozen semen in ampules is a costly business. The glass ampules actually take up more room than the semen. However, as a result of the most recent experimental techniques in semen storage which cut storage costs, it could become routinely practical to store all the semen that might be required from a bull and then slaughter him before his real worth as a sire becomes known. One of the newer techniques is the pellet process in which enough semen for one service is stored in frozen form as a small pellet, about as big as an oversize BB shot. This technique was developed by Dr. E. F. Graham at the University of Minnesota.

Says Dr. A. H. Rajamannan, "At Midwest Genes Inc., I have put this new method to work. We have made 45,000 pellets and inseminated more than 12,000 cows."

There are two drawbacks to the pellet process; positive identification of semen is difficult; and it is still necessary for the technician to carry an ampule of semen extender for each service (the pellet is dropped into the ampule just prior to insemination of the cow).

In Normandy, French engineer Robert Cassou has evolved the French straw technique which appears to be very promising. Dr. John MacPherson of OVC, who visited Cassou, says, "We are doing extensive trials with it; 4,000 cows have been inseminated so far and the results are very encouraging. Quite apart from the reduced storage costs there are indications that fertility may be improved."

The so-called French straws are in reality small plastic tubes which resemble some ball point pen refills in both appearance and size. This is how they are used in actual practice:

- A single straw, sufficient for one insemination and containing frozen liquid semen in an extender is removed from the standard liquid nitrogen container.
- It is thawed, wiped dry and then the bottom tip is cut off with a pair of scissors.
- The straw is inserted in a special plastic inseminating tube which is disposed of after use.
- An attachment with a wire rod depresses the plug which has sealed the other end of the straw. As the plug is forced down through the

straw it acts as a plunger, thus expelling the semen. A constriction at the end of the inseminating tube prevents expulsion of the plug.

Dr. MacPherson, whose research facilities are located in the Breeders Service Building on the campus of Guelph University, is already working on a modification which will halve the storage space required by the French straw developed by Dr. Cassou. The success of these techniques would have far-ranging effects upon our entire concept of breeding and identifying superior bulls.—P.L. ✓

Non-Bloating Alfalfa May Come

FARMERS MAY BE able to pasture their cattle on alfalfa that will not cause bloat, if the research work underway at Summerland, B.C., is successful.

Dr. J. E. Miltimore of the CDA research staff is searching for a satisfactory species of alfalfa that contains a low level of 18S protein—the protein in legumes that apparently is a major factor in causing bloat.

Thus researchers are looking for a variety of alfalfa that contains little of this type of protein and also has the ability to pass this characteristic on to succeeding generations. They are also studying the effect of soil fertility and moisture on the level of 18S protein because these conditions could cause some of the variability that has been observed.

In areas where legumes are the best source of summer cattle feed, the outcome of this project could help solve one of the continuing problems of cattlemen. ✓

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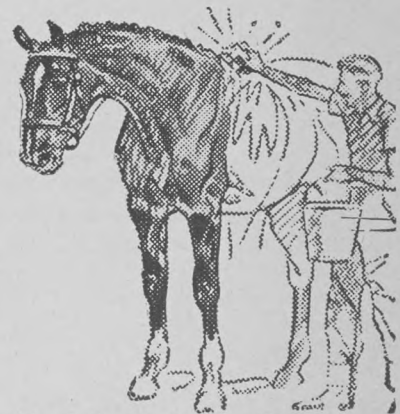
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Stop Shipping Fever — Before It Starts

"THERE IS NO BETTER way to cause shipping fever than to wean range calves and ship them east in boxcars all at the same time," says Dr. Bob Curtis of Ontario Veterinary College. Shipping fever, which is synonymous with pneumonia, develops when cattle are subjected to too much stress. Dr. Curtis makes these suggestions for keeping shipping fever to a minimum:

- Reduce stress where possible.
- Isolate new arrivals.

- Hold cattle in a dry well-ventilated area.

- Severely limit feeding so that the steers are hungry all the time. (If a beast doesn't come up for feed under these conditions, then you know that it is sick. Feedlot operators can gain 24-48 hours in diagnosis under this feed-and-watch program. This is important because delays in treatment give rise to lung damage which reduces both feed efficiency and rate of gain.)

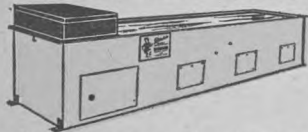
- Include special facilities for sick animals in any feedlot plans or modifications.



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40°-50° below zero? Yes it really gets cold in Dawson Creek, British Columbia! Everything freezes up except my Ritchie Cattle Waterer", reports one rugged Canadian feeder. Keeping plenty of fresh water always available—warmed in winter and pipeline-cool in summer—is the key to top livestock profits. No freeze-ups with a Ritchie . . . and no stagnant, sun-drenched water supply in the summer, either! "Thrifty-Ritchie" waterers are custom-designed to fit every farm need. Nothing has been spared in materials and craftsmanship . . . no production short-cuts to cheapen the quality. Check Ritchie's features . . . its rugged all-steel construction . . . heavy, guaranteed steel troughs . . . superior insulation . . . specially designed, economical heaters . . . fast recovery valves . . . its time-tested thermostats. Here's a dependable product that really works—every minute, every hour, every day. That's why Ritchie Waterers are preferred by agricultural schools everywhere . . . and most important, why they operate so economically and last so much longer! Ritchie offers excellent sales and service facilities throughout the United States and Canada.

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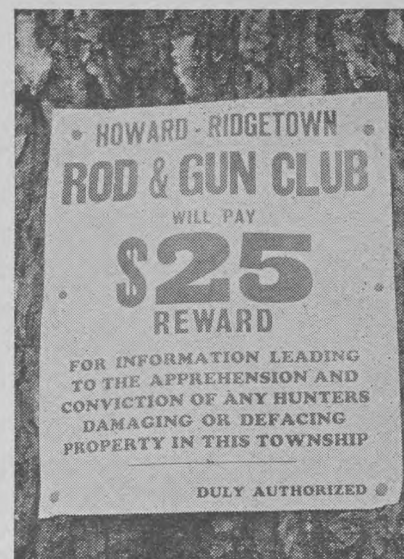
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Livestock



HERE IS a new twist on the ever-troublesome problem of how to take action against unauthorized, property damaging persons in rural areas. The Howard-Ridgetown Rod & Gun Club members, alert to the difficulties caused by such "sportsmen," maintain a \$25 reward for information leading to the conviction of such culprits.

Good hunters realize that destructive persons damage good relations between farmers and urban residents who enjoy a country outing.—Arthur Goodwin.

Feed Hogs by Mouth

TWO agricultural engineers in the United States have designed a feeding system for hogs which automatically mixes a slurry (liquid mixture of feed and water) and injects it directly into the hog's mouth.

They designed a feeding nozzle which delivers a measured amount of slurry each time the hog bites on the nozzle. The hogs learned to use it quite readily with practically no feed wastage.

One of the scientists, Carl Van Gilst of the James Manufacturing Co., said the nozzle could be incorporated into a complete feeding system in which a single pipe with a number of nozzles passing through all the pens would supply the hogs with both feed and water. The feed and water could be automatically metered into the system.

Bedding at a Premium



Corn cobs make absorbent bedding for loose housing barns

[Guide photo]

DON'T OVERLOOK any cheap source of bedding material; bedding may be scarce and expensive this fall and winter in Eastern Canada. Several factors have combined to create this situation:

- Winter wheat kill was the most severe on record.
- The drought will reduce the height of spring grain over a wide area.
- Corn has replaced oats on a large acreage.

- Combines and picker shellers leave corn cobs in the field, rather than piled up near the barn.

- Wood shavings and sawdust, in recent years, have fallen short of requirements.

Shredded and baled or chopped corn stover provides one of the most logical answers to the problem. Slotted floors, rubber cow mats and free stalls all reduce the amount of bedding required.—P.L.

Low Protein Sow Rations Best

SOWS FED a ration containing only 8 per cent protein, in Manitoba feeding trials, made adequate weight gains during gestation and produced litters which performed as well during lactation as the litters of sows

fed a 14 per cent protein ration. Dr. S. Stothers, Animal Science, University of Manitoba, says that recent studies indicate that current requirements may be at least twice as high as necessary and predicts that within the next 3 to 5 years it will be possible to put out separate special supplements for the first 3 months and the last month of gestation.

Plant identification at Arrow Creek. This is real rattlesnake country



[Guide photos]

Range Management Tour

THE BEST PLACE to learn about range plants and range care is out on the range where you can see weed and grass species competing under natural conditions. If there are a few range specialists along to point out the various species and show how overgrazing gradually eliminates the succulent grasses and encourages such weeds as Russian thistle and sagebrush, you can pick up some mighty valuable information. When the trip also includes a couple of nights sleeping out under the stars in the high range country it becomes a memorable experience.

That is what it is like to attend a meeting of the International Mountain Section of the American Society of Range Management. You visit some of the out-of-the-way range areas in Alberta and Montana, learn a bit of the history of these places and get a chance to taste some fine range beef cooked out under the pines where the nippy mountain air puts a tang on your appetite.

This year's meeting took place in the Judith Basin and Little Belt Mountains of central Montana. The long caravan of cars, trucks, campers and trailers left historic Fort Benton on the Missouri River, July 15. First stop was a plant identification session at the Arrow Creek breaks where Forest Service personnel had obligingly cleaned out the local rattlesnake population before the main party arrived. Then it was on to the upper ranges of the Curtis Hughes' ranch near Stanford, and the first night's camp at Dry Wolf campground in the Little Belt Mountains.

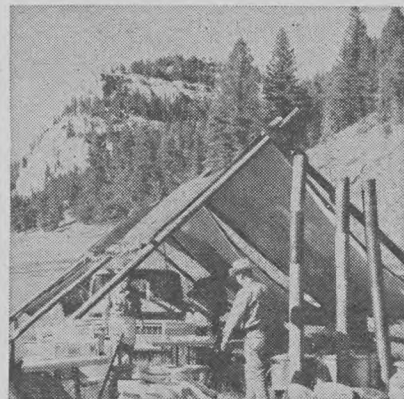
Next day, the tour visited the Spring Creek range enclosure and members took part in a plant judging contest at the Moccasin Experimental Station. In the afternoon the long caravan moved up the Judith River into the favorite haunts of cowboy artist Charlie Russell. A stop was made at the old log build-

ings of the Bodley ranch, locale of the famous Russell picture "Waiting for a Chinook," and then back into the Little Belt Mountains to spend the night at Russell Point campsite. Here, Fred G. Renner, Washington, D.C., told "The Charlie Russell Story," complete with slides and movies.

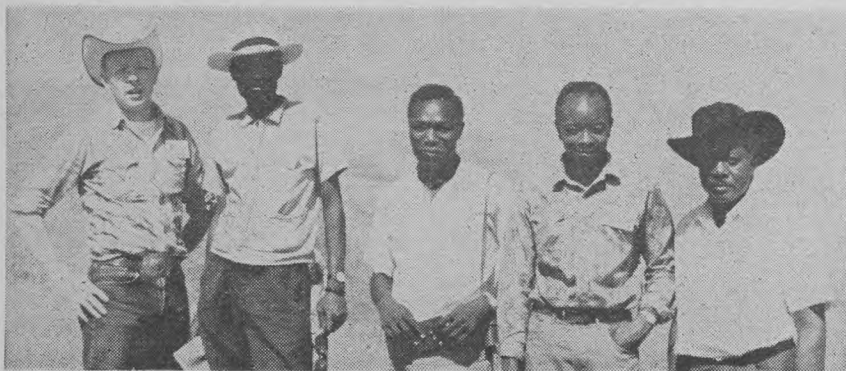
On the final day, the tour visited another pioneer ranch, saw some high mountain sheep and wildlife range and wound up on Highway 89 after traveling right through the mountains over a network of weaving bush roads.—C.V.F. ✓



A weed identification contest at the Moccasin Experimental Station—an adult form of learning to do by doing



A cook tent is essential equipment on most range tours. Here the tent goes up at Russell Point campground



Range and wildlife management specialists from Uganda, East Africa, who were on a 6-month study course at Bozeman, Mont., joined the tour. They included Solomon Mwanga, Donart Watum, Peter Kizosi and Edward Damba who are pictured (l. to r.) with Matt Stiles of Montana State University



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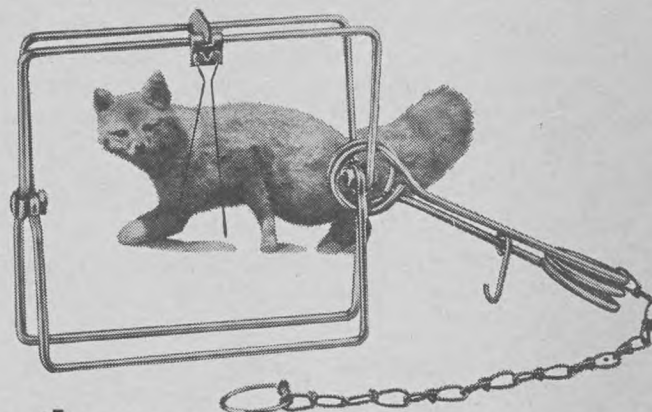
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"GILLETT'S makes sure there's no disease germs lying around"

Ray Dennis is manager of the Sow Unit of Prairie Agencies Ltd., part of a large, modern hog operation near Weyburn, Saskatchewan. An indication of the sound management of this unit is its success in farrowing an average of over ten pigs per litter on 115 sows and weaning over nine pigs to the litter.

To keep down disease, parasites and insects, Ray insists on the use of Gillett's Lye as an important part of the sanitation program. After each litter the farrowing and brooder pens are washed down with Gillett's Lye solution, and three times a year an extra special scrubbing that includes alley-ways is carried out. "Gillett's Lye makes sure there's no disease germs lying around," says Ray.

No other product you can buy does so many cleaning and sanitizing jobs, and does them as inexpensively as Gillett's Lye.

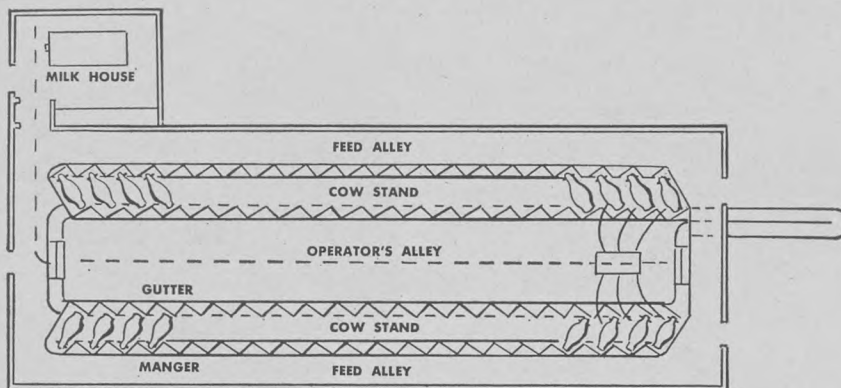


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Herringbone Style Dairy Stable

This design solves some milking problems



WITH UDDER problems taking years off the productive life of most dairy cows, veterinarian Dr. H. Lewis, who also is a farmer with a dairy herd of his own, decided to design a cow stable in which he could deal with udder problems more effectively.

He decided the problems of most dairy barns are two-fold:

- too many udder troubles go unnoticed because the cows' udders

cannot be observed closely by a person standing on the same level as the cow;

- during milking, too much time is lost carrying milk to the milk house, resulting in careless milking practices.

In remodeling his dairy barn, near Locksport, N.Y., he came up with a herringbone stable in which each cow's udder can be more easily observed, and in which the

milker doesn't have to waste time walking to the milk house when he is milking.

The herringbone style simplifies the cows' entry and release from the stalls, and allows easy access to each cow's udder for observation or for milking, because the cow stands are raised.

The service or operator's alley along the center of the building is 8 feet wide, and 30 inches lower than the cow stands. Steel rails guard the projecting edge of the cow stalls while drainage from them is through a metal grill. A pipe grate covers the gutter to allow wastes to fall through. A modified single head rail tie stall confines the cows in their individual stalls.

Dr. Lewis' system of transporting milk to the milk house is a novel one. He decided that a cheaper method than using stainless steel or glass pipeline was to mount a small direct expansion bulk tank on an overhead conveyor rail. He attached three milker units to each side of this. This tank holds the milk from about 40 cows, so it must only be emptied twice in milking an 80-cow herd. The portable tank is refrigerated, but the cooling process is completed in the floor model bulk tank in the milk house.

One man can milk the 75-cow milking herd of Dr. Lewis in 1½ hours using this novel system.

Dr. Lewis is further experimenting with various levels for the operator's alley—from 12 to 30 inches below the cow stand. He is also trying out rubber mats as an alternative to bedding materials, as well as insulated concrete in the cow stalls.

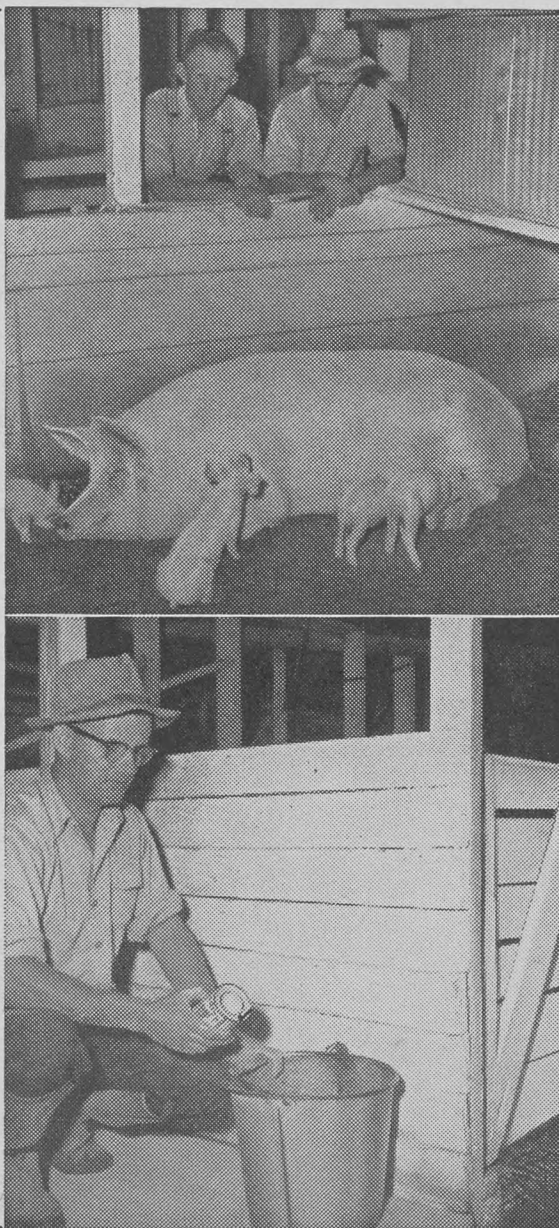
This dairy barn is proof that there is room for farmer-inspired innovations in dairy cattle housing. Many farmers might be able to install a double 4 or double 8 herringbone style parlor using some of the ideas and economical equipment evident in Dr. Lewis' stable.—R. J. Milne. ✓

Ketosis Might Be Prevented

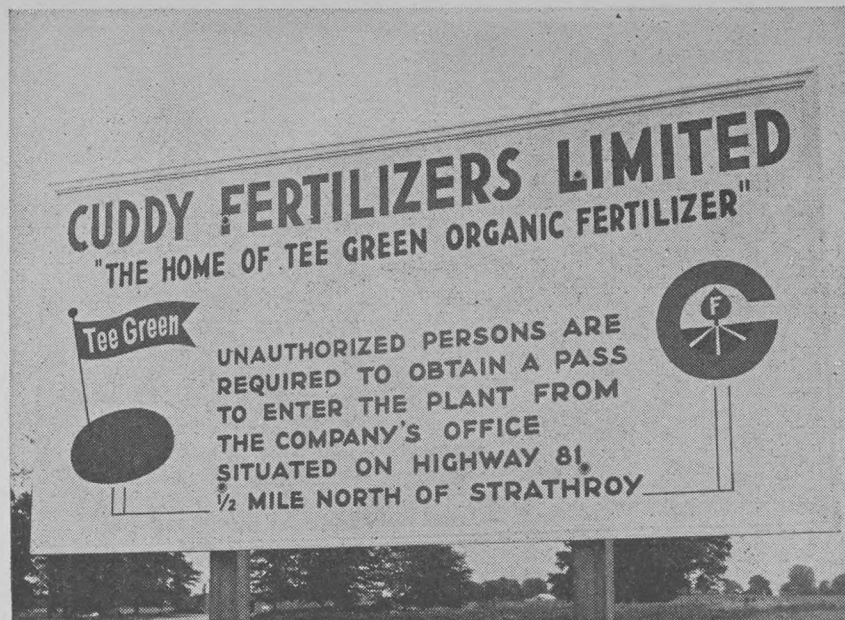
DAIRYMEN may soon prevent ketosis in their cattle by feeding small quantities of propylene glycol 2 weeks before and 6 weeks after calving. Dr. N. E. Stanger of the Animal Science department, University of Manitoba, is studying this method, working with several dairy herds in the province.

Ketosis results when the cow cannot release enough energy to meet her production demands. This failure seems to be connected with the stresses of early lactation. The condition can be cured by injecting glucose solutions but the present study is an attempt to develop a preventive.

Animal scientists suspect that many cases of ketosis are not apparent to the herd manager and go untreated even though there is a loss of production. A standard preventive treatment would stop these hidden losses. ✓



Mac Cuddy is developing a unique granular organic fertilizer; the welcoming sign has the flavor of military security!



[Guide photos

Manure Smells Sweet at \$194.50 a Ton

If you have the money, a mountain of poultry manure, engineering know-how and a lot of nerve you may turn a disposal problem into a profit.

WHERE'S THE profit in poultry? According to Mac Cuddy, of Strathroy, Ont., who jumped into the turkey business under VLA after the war, there is a potential profit in every phase of the operation. Just as the meat packers have become more sophisticated in turning what was formerly waste into profitable by-products, so Cuddy is using the same technique for poultry. His latest development is to market poultry manure. Sold through stores and garden supply firms, it retails for \$3.89 for a 40-pound bag.

For anyone with recent and unhappy memories of turkey, fowl and egg returns, this might look like the gold at the end of the rainbow. While the possible profit is indeed considerable, it hinges on two factors; a large volume of poultry litter must be available in a concentrated area; and a high capital investment is required for poultry litter processing.

"Already," says Cuddy, "we have a big investment tied up in the venture and there are still some technical problems to overcome."

With the evolution of large units of livestock and poultry there is widespread interest in the disposal of manure. Both poultry and cow manure is being dried and bagged in the United States and one city has had extensive experience in producing and selling processed sewage. In most of these operations the emphasis is upon economic disposal of wastes but Cuddy prefers to view it as a profitable by-product of the poultry business. "We want a profit at every level," he says. "Every operation has to live or die on its own merits. We maintain accurate costings on each division."

The first prerequisite of successful poultry litter processing is a large

volume of raw material. Cuddy Turkey Farms, with its wide-ranging operations, scores on this count: 4½ million poults are hatched every year; 100,000 laying hens are in production under contract; 200,000 broilers and heavyweight turkeys are grown; and turkey breeder flocks totaling 35,000 birds are maintained. These combined poultry operations should produce enough raw materials to keep the plant in operation, on a single shift basis, for an entire year, producing 5,000 tons of dried organic fertilizer.

Mitchell Baran, Cuddy vice-president, says, "Damp manure means expensive processing. Through adequate ventilation in the houses and the addition of a superphosphate product we not only keep the moisture percentage down but also minimize leaching and the loss of nitrogen. Dry litter is also beneficial to the health of the birds."



Litter goes in one end; and little bags which retail at \$3.89 come out

When the plant is completed, the manure will be trucked to paved and covered storage areas. This will allow partial drying to perhaps 55-60 per cent moisture. Litter moves from there into the main building in a manure spreader. Unloading by means of the PTO breaks up the long straw. A conveyor belt feeds the material into a flow-through drying system. Ultimately the material emerges at some 8 per cent moisture and in a granular or pelletized form. As this is the only granulated process of its kind, zipper-lipped security surrounds the engineering features pending possible patenting.

In contrast to the regulations controlling commercial chemical fertilizers, organic fertilizers do not have to carry a guaranteed analysis. However, Cuddy intends wooing the customers with a quality product guaranteed at 7-3-3. A second line may be added later; this would be mushroom compost activator. This product is currently imported and Cuddy sees a potential market of some 2,000-3,000 tons a year.

The plant overhead might be reduced by running a second or even a third shift if the operation prospers. The overhead could be still further pared as the plant can also be used for mixing chemical fertilizers.

With the Cuddy plant only just getting into production it is difficult to assess the possible implications for the poultry industry in general. It could mean, in areas where there is an adequate source of raw material and also a good market, that poultry litter processing will become economically feasible. Co-operatives might be the answer to high initial capital costs.—P.L.

V

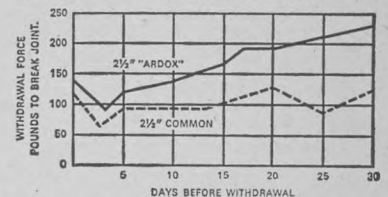
NUMBER 11 IN A SERIES

Let's chat
with
John Blakely

about
advantages
of the "spiral"
nail design

As you know the spiral nail was a development to increase the wire nail's holding power in wood fibres. How effective has it been? The man to ask, of course, is the man who has been using them. What he tells you will likely tie in with results we obtained in research involving the "Ardox" spiral nail.

We found that "Ardox" offers from 50 percent to 200 percent greater holding power depending upon the application and the nature of the wood. The graph below shows how much more force it took to break a joint fastened with a 2½ inch "Ardox" spiral nail compared to one fastened with a 2½ inch common nail.



"Ardox" spiral nails have three other advantages — because of the slimmer shank (which is made of tougher steel to resist bending) there is less wood splitting. For the same reason, "Ardox" nails drive with 20-30% less effort than smooth shank nails. The third advantage is that "Ardox" actually cost less than old fashioned smooth nails. They cost a little more per lb., but because there are more "Ardox" nails per lb., the cost per nail is about 5% lower.

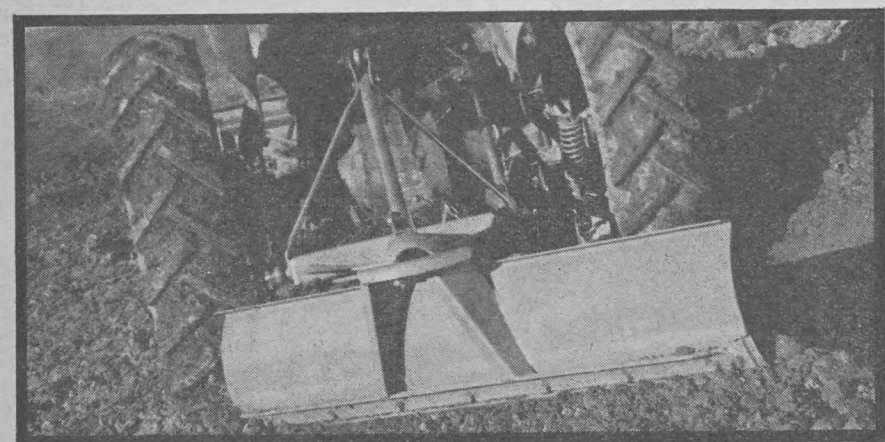
When you add the advantages of less splitting and easier driving and lower cost per nail, it's not difficult to understand why they have become standard equipment where farm building is concerned.



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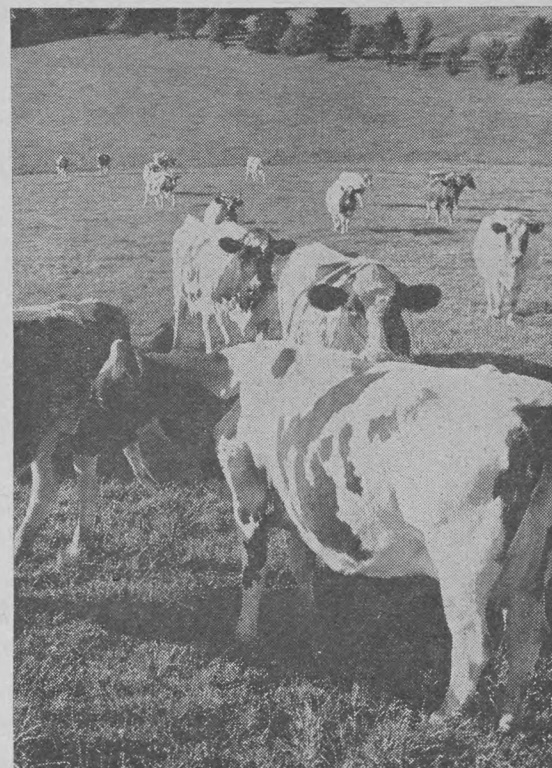
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Lime and fertilizer help produce good pastures for Sterling MacRae's Ayrshire herd at New Wiltshire, P.E.I.

[Guide photo]

Maritimers Boost Legumes

THROUGHOUT the Maritime provinces, farmers are boosting their legume yields by taking advantage of provincial lime and fertilizer subsidies and by improving management practices.

Sterling MacRae of New Wiltshire, P.E.I., follows this program for good pastures:

- Lime heavily when a field is broken up.
- Soil test and use up to 500 lb. of 6-12-12. (Higher analysis fertilizers are just becoming available with the building of new fertilizer plants.)
- Sow a light nurse crop with the seeding, and pasture it early.
- Maintain alfalfa by resting it in September.
- Top dress with light coats of manure.

Ernie Eagles, district agriculturist at Sussex, N.B., says, "We are concentrating on alfalfa but there

are still some things which we have to learn about it under our conditions. It has the potential for two cuttings and an aftermath. We believe that a light nurse crop will increase the yield the first year. It gives the weeds competition and won't hurt the alfalfa, if it is cut early."

Robert Manning of Sussex uses a nurse crop and cuts and conditions the oats for hay. Manning, who ships milk to the St. John market, says, "In the past we have always been short of forage. Now we have lots and we now need to upgrade our cows. We have up to \$50 per acre invested in seed, limestone and fertilizer. This is too much money not to do everything possible to maintain a good stand of alfalfa."

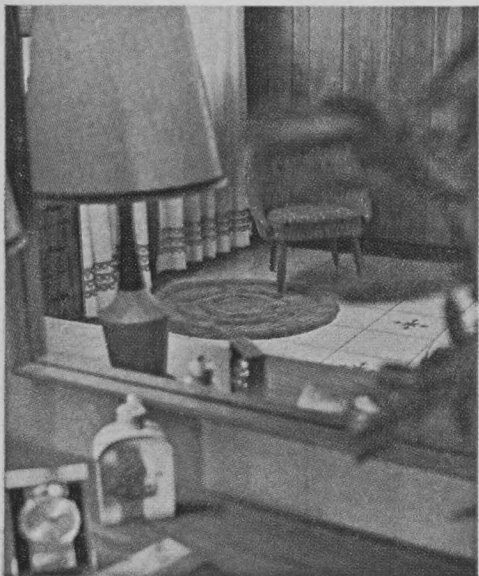
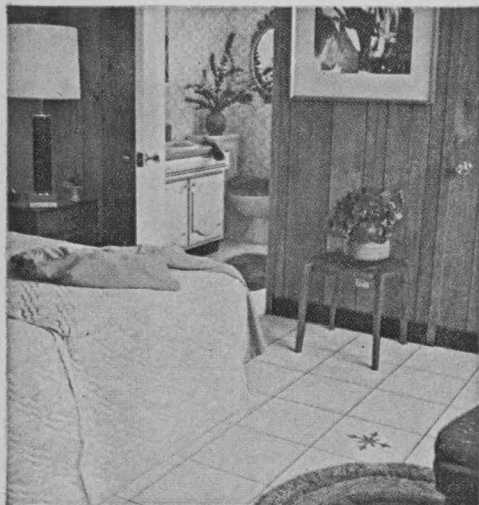
The New Brunswick fertilizer recommendations for 1965 indicate just how much effort is needed to establish and maintain good legume stands:

Forage Crops for Hay or Silage	Analyses	Pounds per Acre
Clover, spring application	0-20-20	400-500
Clover, after first cutting	0-0-60	100
Grass, for each cutting (8 to 10 tons of manure top dressing will replace one application) ..	15-5-15	300-500
Alfalfa, after the seeding year, a spring application	0-20-20-3B	500-600
Alfalfa, after each cutting	0-0-60	100
Alfalfa, seeding year without nurse crop	3-15-6-3B	800-1,000
Pastures	Analyses	Pounds per Acre
Annually, fall or early spring	0-20-20	300-400
In addition, annually, last of June or early July	Amm. Nitrate or Urea	150-200 125-150
For very early grazing on limited well-drained area of fertilized pasture	Amm. Nitrate or Urea	150-200 125-150

N.B.—When nitrogen fertilizers are applied, grazing should be delayed until after a rainfall.
(Please turn to page 33)

Did Chatelaine
choose wall-to-wall
broadloom
for this
master bedroom?

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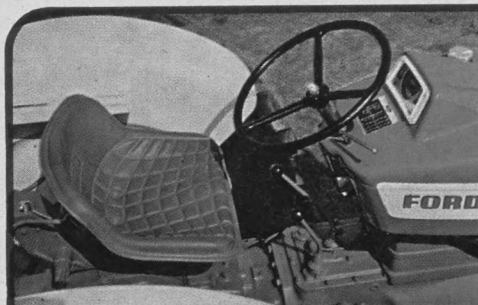
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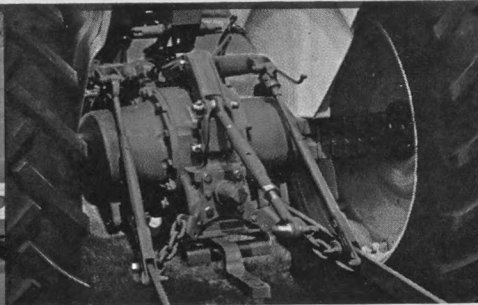
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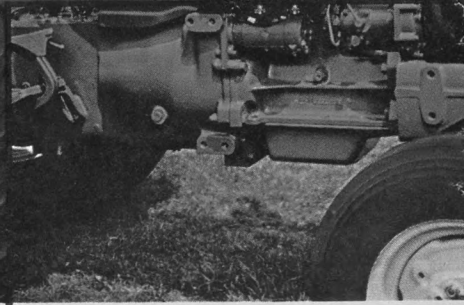
TRIANO
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This new tractor seat offers all-day comfort. Notice the roomy deck, the easy-to-reach, easy-to-use controls.



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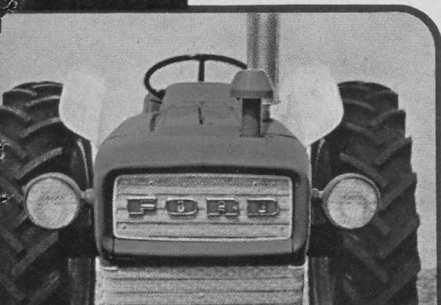
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Rapeseed Oil Meal Mission Reports

IF THE JAPANESE feed manufacturers were to use only 5 per cent rapeseed oil meal in poultry, cattle and swine feeds, twice the present meal production would be required. However, the Japanese feed industry is reluctant to use the meal at all according to the report of the Canadian Scientific Mission for Rapeseed Meal to Japan. The mission found two reasons for this reluctance: rapeseed oil meal finds a ready market as fertilizer at prices competitive with its value as a protein supplement; and the Japanese feed trade does not know what levels of the meal can be used without affecting production.

The objective of the mission was to develop interest in the use of rapeseed oil meal in Japanese feeds. Inorganic fertilizers will soon replace rapeseed meal in the fertilizer industry and unless the Japanese feed industry is prepared to use the meal in feeds Canada's sales of rapeseed to Japan could be reduced.

The report describes a growing livestock industry, with a parallel growth in the feed manufacturing industry. In 1962 the Japanese feed industry produced 4,990,000 metric tons of commercial feed, using 4,062,000 metric tons of imported feed grains and other feedstuffs.

Poultry consumed 74 per cent of the feed, all as complete feed; dairy cattle took 10 per cent, one-third as complete feed; and 16 per cent of the production went to swine and other livestock classes, with only a small amount of it as complete feeds.

To protect Canada's export market for rapeseed in Japan and to take advantage of the potential market in the Japanese feed trade, the mission recommended an education program to acquaint researchers and feed manufacturers in Japan with development in rapeseed meal use, and Canadian experience with rapeseed meal in livestock and poultry rations. It also suggests that research in Japan should be encouraged.

The mission also suggested that research in Canada should be aimed at developing goitrogenic-free varieties of rapeseed with low fiber content. The mission believes this would do more than anything else to improve the status of rapeseed meal as a feed supplement. It pointed, too, to the need for basic research to answer these questions: which of the various mustard oil glucosides are related to the goitrogenic effect, how the goitrogenic substances act, why different classes of livestock respond to rapeseed in different ways? ✓



(Continued from page 28)

Dr. Lloyd MacLeod of the Experimental Farm at Nappan, N.S., has been doing extensive lime and fertilizer trials with forages.

Says MacLeod, "The best recommendation is to put on what limestone you can afford over a wide area. Then use the increased productivity to finance a gradual increase to a pH of 6.5. Fertilizer response begins to appear at pH 5.5;

if the pH has not been brought up, even an application of 900 lb. of 0-20-20, on our test plots, had as much effect as throwing it down a rat hole."

Previous studies have shown \$1.80 return for each fertilizer dollar invested; fertilizer can be increased as the pH level increases. Also, as the acidity of the soil is reduced so brome grass becomes a better prospect than timothy.—P.L. ✓



Dick McLeod, of Penobsquis, N.B., levels off a good cutting of clover

[Guide photo]

Promising New Weedicide

BUCTRIL, a weedkiller developed by a British chemical firm, has proved effective in widespread tests in the prairie provinces over the past two seasons. A swift killing action with a high degree of crop safety appear to be the most outstanding features of this new herbicide.

Buctril is a "broad spectrum" killer, effective against wild buckwheat, tartary buckwheat, wild mustard, ball mustard, stinkweed, cow cockle, lamb's quarters and many perennial weeds. It has shown only a limited effect on the top growth of Canada thistle and perennial sow thistle.

"Of the annual weeds, hemp nettle and chickweed do not appear to be affected by Buctril alone, but

can be controlled when the chemical is mixed with either MCP or 2,4-D," Henry Friesen, Lacombe Experimental Farm, told Country Guide.

Buctril can be used early in the season (at the two-leaf stage) and will thus remove weed competition early. Under normal conditions, commercial varieties of wheat, oats and barley show no ill effects from this chemical, although some special weather conditions have been known to affect this tolerance. Tests at Regina indicate that this weedicide will also work well in flax.

Buctril has a somewhat different killing action than either 2,4-D or MCP. It is a "contact" or "burning" action which kills the weeds completely within 4 or 5 days rather than 3 weeks or more. In the light of test results to date, this chemical will probably be placed on the recommended list this fall.—C.V.F. ✓

18-Acre Tent

CANADA'S largest tent, a cloth shelter covering 18 acres, provides a manipulated climate for a big tobacco growing experiment in Ontario's Norfolk County. Here a crew raises a section of the "big top" over the sandy loam field where cigar wrapper leaf will be grown. The goal is to produce a Canadian quality leaf that will reduce dependence on foreign imports.

The tent, of porous material, filters the sunshine and holds the humidity inside. This creates a sort of artificial tropical climate that is favored by choice cigar tobacco. The tent top is made up of 33-foot wide strips, all hand sewn to make it an unbroken surface.

The experiment is the result of the initiative of two Canadian firms. Imperial Leaf Tobacco Company Ltd. and the General Cigar Company have teamed up for the king-sized test.—Arthur Goodwin. ✓



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Farm Pond a Liability?

ONE WAY to fight the drought is by digging farm ponds, and hundreds of Ontario farmers were doing that last summer. A pond, however, can also be a hazard, and so the legal aspects of it are important. Solicitor John McMurphy makes the following points regarding the legal liability involved by the owner.

Persons entering a farmer's property may fall into three categories: the invitee, the licensee and the tres-

passer. This is further complicated, says McMurphy, because a person may be an invitee on one part of the premises, a licensee on another part, and a trespasser on another part.

For example, if a farmer advertised by means of a sign at his gate that he had eggs for sale, then a person entering the premises to purchase eggs would likely be an invitee. If that person then requested

permission to shoot ground hogs elsewhere on the premises without paying for the privilege and the farmer consented, excepting only a certain parcel of land, then that person would be most likely a licensee unless he entered on the prohibited parcel of land. In this case he would be a trespasser. Thus, the one person entering on the premises in the above manner would be entitled to expect from the farmer a high standard of care while he was purchasing the eggs, a somewhat lower standard of care while he was hunting

ground hogs and virtually no standard of care while he was in the prohibited area, says McMurphy.

Children present a special problem. While they may be considered to have trespassed upon a farmer's property, it is the farmer's responsibility to minimize the attraction of "an allurements." In the eyes of the law, a cool pond on a hot day could be considered to be an allurements.

The law, the interpretation of it, and the determination of liability are sufficiently complex that responsibility may only be established after lengthy and costly litigation. Adequate fencing around a farm pond and clear "Danger" and "No Trespassing" signs are prudent moves which could keep children out of trouble and the farmer out of the law court.—P.L. V



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[Ont. Gov't photo]
Ponds should be fenced and posted to minimize the farmer's legal liability

Farm Income Should Average \$6,000

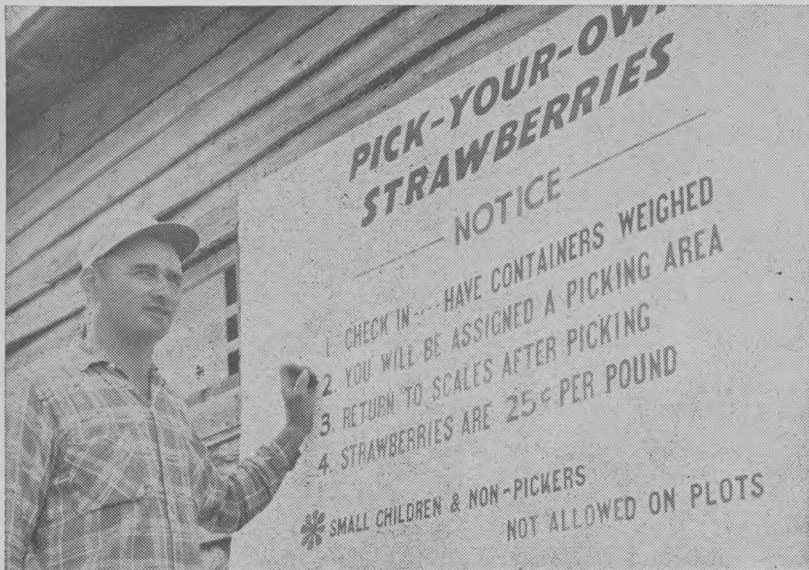
TO MEET living expenses of \$3,200 a year, the average farm family in Canada should sell about \$6,000 worth of farm products every 12 months. That's one conclusion of a recent study of farm income sources carried out by the Canada Department of Agriculture and the Dominion Bureau of Statistics.

This survey assumes that the family does not receive any income from sources other than the farm. The cost of living figure of \$3,200 also includes the estimated costs of all home produced items.

Actual figures for 8,077 farms studied across Canada indicate that 70.7 per cent of them sold less than \$5,000 worth of goods and 22.5 per cent had sales below \$2,000. In these cases there was considerable income from non-farm sources, such as other jobs, government pensions and allowances, and investment income. In most cases the total income received from both sources was adequate to meet the average living cost of \$3,200. As expected, farmers with sales of less than \$2,000 received most of their income from off the farm.

However, if a farmer expects to meet the average living costs of \$3,200 per year from farm income alone he should gear his farm to produce at least \$6,000 in gross sales. V

Horticulture



First plan for marketing the strawberry co-op's first big crop was to handle them three ways: pick-your-own; stand sales; and outside orders. Manager Bill Wowk, above, found that pick-your-own sales quickly outran supplies

Cash Crop for Small Farmers

DEMAND FAR EXCEEDED supply when hundreds of people poured into Manitoba's Hadashville district this summer to pick their own strawberries for 25¢ a pound. They were headed for the Reynolds Fruit Growers' 14-acre strawberry plot to harvest a new cash crop. One morning, for example, pickers took off some 6,000 pounds of berries from the co-operative project and orders were coming in from outside the province. Actually, they came in such numbers that growers couldn't operate their roadside stand.

Hadashville is a district of small farm holdings with a smattering of beef herds, where supplementary income is necessary if its people are to have a better living. Many of them already find other means of earning that extra income; others, such as the 74 members of the fruit growers co-op, have struggled to establish a new cash crop with the help of the provincial department of agriculture. The department provided technical and financial help; members the actual labor.

Manitoba's sandy-soiled southeast corner is not a depressed area according to provincial fruit specialist Pete Peters. Rather, it's an area of limited opportunities. One of Pete's more recent projects was to find what those opportunities were. He thinks he's found one in strawberry production. The people growing the berries are beginning to think so too.

A lot of preliminary research by provincial government specialists and members went into soil and variety tests. They looked into methods of planting, cultivating, harvesting, wintering and marketing a strawberry crop and then got the project underway 3 years ago. In those years frost and hail killed entire crops. This year brought a bumper harvest.

Why a co-operative venture?

Mostly because this way members could operate a larger acreage with one set of equipment — sprayer, tractor, irrigation pump and pipe.

From the beginning members worked to get a blemish-free, quality product. Of all the varieties they tried in their test plots they selected three principal ones — the new Canada Department of Agriculture variety named Redcoat and two older ones, Sparkle and Senator Dunlap. They brought in virus-free stock, most of it from Ontario, and plant 2 acres a day with a tobacco planter adapted for strawberries.

Nursing strawberry plants through Manitoba's freezing winters and unpredictable springs was one of the most pressing problems. Now, immediately after the crop is taken off, rows are mowed down and narrowed to 1-foot widths by rototilling the sides. Then they are thinned out with the tines of a side delivery rake and dosed with 2-4-D (½ lb. per acre).

Once this is done, plants get an application of a complete fertilizer (10-30-10) applied at 400 lb. to the



Co-op members such as Gladys Klapak and Anne Kulczyk, shown above, earned their shares by contributing their labor. They were paid \$1 an hour

acre. Then they're irrigated almost continuously.

The time to cover strawberries, to carry them through the winter, they've learned, is as important as the method and so they cover the plants with wheat straw when the temperature drops to about 20°F., usually in October or November.

A straw mulch cutter cuts the straw in 6" lengths and covers the plants to a depth of 4 inches (3 or 4 tons to the acre). They've tried other mulches but have found clean wheat straw most successful because it gives more uniform covering and doesn't mat or blow.

This straw cover also protects plants from late spring frosts. Around mid-May, when the plants look as if they are "crying for help," they are uncovered although some straw is left in the rows to keep them from drying out.

Once the plants put out runners, beds are cultivated and some straw is worked in to keep the beds friable. These beds are kept about 2 feet wide. This makes for easy picking and exposes the berries so they can ripen evenly.

Members of the co-op have learned that proper spraying to control insects and plant disease is essential to strawberry cultivation. Just before general bloom and when the flowers are in the balloon stage, they get concentrated treatment: Kelthane for cyclamen mite and DDT for tarnished plant bug; Captan for leaf spot and fruit rot; Malathion for virus disease and aphids.

Most of the farm equipment has been adapted from regular market garden equipment. Some, such as the high-gallage sprayer, is new but irrigation equipment is second-hand and members put a tractor costing \$25 into working order to drive sprinkler heads.

With a big strawberry crop behind them, growers are also marketing the raspberries and corn from plantings that doubled as guard rows. But what of the future now they have tangible proof that they can grow specialty crops? According to Pete Peters, the most important fruits in Manitoba's future, after strawberries, are raspberries, crab-apples, plums and apples. There are also possibilities for tomato, carrot and corn production. What he foresees is that Hadashville could become a virus-free production center for all these crops now growers have learned that it can be done if they work at it together.—Elva Fletcher. ✓

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Another Look at Wood Stave Silos

In this dairy area, farmers are finding that silage acids are damaging concrete silos

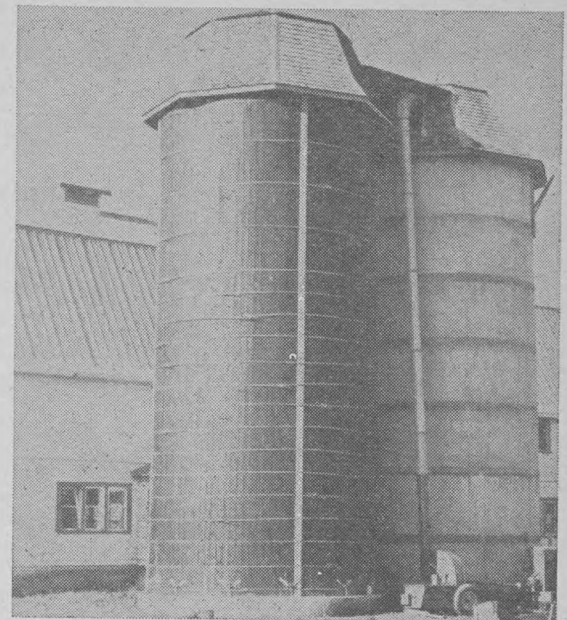
WHEN YOU SEE a farm with a new wood stave silo sitting beside an older concrete unit you wonder if the owner is experimenting with the two types, or whether somebody just gave him an exceptionally good buy on a wooden model. But when you see the same thing on several farms, and you learn that wood silos are more expensive than concrete ones, you begin to ask a few questions.

Bruno Suchocki, who farms 75 acres at Agassiz, B.C., was willing

to provide some answers. Bruno has a 6-year-old concrete silo with a 14-foot diameter and a newer wood stave model with a diameter of 16 feet.

"Even if the concrete one was the same size it would be cheaper to build," he told Country Guide, "and a lot less trouble to operate. The wooden silo takes more looking after. You have to keep cinching up on the hoops to keep it tight. But it is worth the extra trouble and expense. Silage acids are hard on

Agassiz, B.C., dairy farmer Bruno Suchocki is finding that his wooden stave silo takes more looking after but is not deteriorating as rapidly from silage acids as the concrete structure



[Guide photo]

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concrete. My concrete silo is beginning to deteriorate already. It will be unusable in another 5 years."

A check with District Agriculturist George Cruickshank at Chilliwack revealed that many Lower Fraser Valley farmers have been having the same trouble. The B.C. Department of Agriculture recommends that all concrete silos be washed out with linseed oil (or some similar substance) each year before new silage is put in. Then every 4 or 5 years it should be given a coating of cement wash to fill in any cracks that have developed. Preservative paints are now available for the interiors of concrete silos but they are rather expensive to apply and maintain.

Bruno Suchocki likes his wooden silo for another reason. He does not have so much trouble with freezing. At -2°, which is very cold for Agassiz area, the frost penetrated a foot in the concrete silo and only a few inches in the wooden one. This is an important factor to Bruno because he unloads his silos by hand. Part of the freezing trouble could be due to the fact that silage crops in this coastal area are very moist and succulent. Country Guide found that prairie operators using automatic unloaders in concrete silos in -25° weather experienced no difficulty.

Bruno has a herd of 55 Holsteins, about 34 of which are milkers. He feeds grass silage, corn silage, hay and a little grain (which he buys). In normal years the farm supplies all his forage needs. Silage corn grows well in this part of the valley. At the nearby Agassiz Experimental Farm, agronomist Bill Davis reports plants up to 16 feet high and yields of 30 to 35 tons per acre for recommended varieties.

For his first year, Bruno tried putting up silage in a wooden bunker, but he soon abandoned this in favor of the towers. There was too much spoilage in the bunker silo and too much labor was needed to fill it.

"I had to have two men to help me fill it, and the spoilage smelled up the whole place," he said. "Now I

don't have to hire anybody. The wife and I can handle the whole job. We just blow the silage into the towers, and when we feed it we don't have to even go outside."

The unloading doors of the silos are located in a small annex to the main barn. At feeding time, a push cart is loaded with silage and hauled to the cows. Hay is stored in the barn loft and thrown down at each side.

Bruno Suchocki was born on a mixed farm in Poland. During World War II he served with a tank corps of the British 8th Army in Africa, Italy and several other countries. He came to Canada after the war where he worked under contract on a sugar beet farm in the Lethbridge area for 2 years. Then he worked 5 years in a coal mine at Coleman, Alta. When the mine began to shut down for 2 or 3 days every week, Bruno decided to look for something more steady.

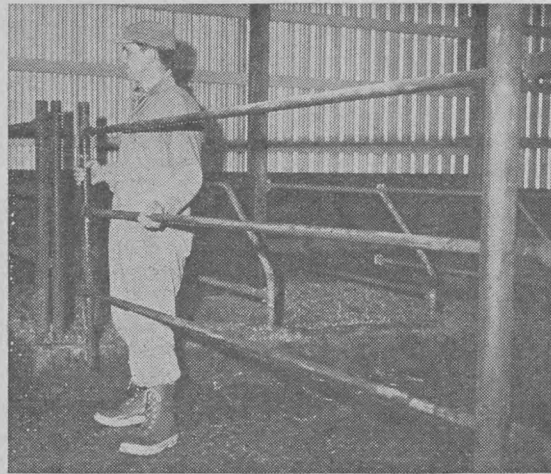
"Work on a dairy farm is steady all right," he admitted, "too steady. You don't get nearly enough return for the amount of time and money you have invested. In the mine, my total investment was about \$12 for a pair of gloves."—C.V.F. V

Fiberglas Silos

FIBERGLAS sealed silos with a capacity of up to 60 tons are now available to British farmers. They can be used for storing wet or dry grain, seed, or any other free-flowing material. Intended for small farms, they come in lightweight reinforced sections: two for the cone-shaped roof which is 5 feet 8 inches high and four for the cylindrical body of the silo itself which is 15 feet high and has a diameter of 15 feet. The sections are welded together with mastic.

The silo is loaded through the top of the roof and unloaded either through an airtight valve which allows an auger to be inserted in the bottom of the silo, or from a gravity flow pipe. A pressure valve is fitted to the roof next to the filling cap. V

Telescopic Gates Work Well



[Guide photo]

Dennis Turvey pens the cows up for milking with the aid of this well-built telescopic gate

TRAFFIC problems aren't restricted to cities and highways. As dairy cattle numbers on farms increase, so does the need for the smooth movement of livestock "traffic." When the three Turvey brothers, Keith, John and Dennis changed over from loose housing to free stalls, they planned for the flow of

cows to and from the milk parlor.

Gates are necessary for penning cattle prior to milking and yet the rest of the time they may be in the way. The Turvey brothers' answer to this particular problem was a homemade telescopic gate. When not in use the gate slides neatly into the 2" steel tubing partition at

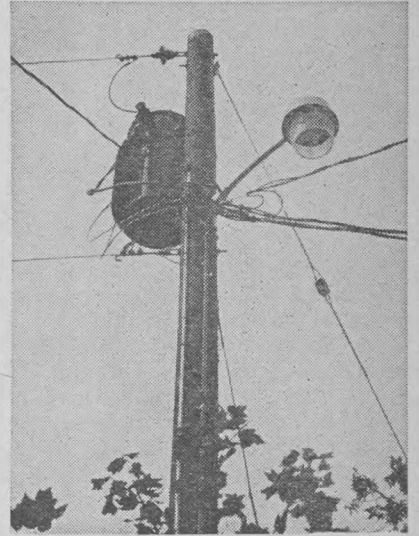
the end of a row of free stalls. The vertical end of the gate is also made of 2" tubing and it is secured with a removable steel ring. The three horizontal bars of the gate are

made of 1 1/4" heavy gauge tubing. A 2'-length at the end of each bar is built up with larger diameter tubing so that there is a fairly tight fit inside the 2" tubing.—P.L. V

Pst! CSP for Savings

SOME 700 Ontario farmers now have Completely Self Protected (CSP) transformers on their farms. Ontario Hydro made this new main service available last fall in recognition of the greatly expanded use of electricity in and around farm buildings. The incentives for the farmer to change to CSP are that initial savings will range up to \$1,000 and there are no additional costs if the farm operation is expanded.

To qualify for CSP the total requirements have to be 200 amp. With many farm homes now requiring a 100-amp. service, and with automated hog, poultry or dairy barns also exceeding 100 amp., most 100-acre farms with a degree of automation would qualify; the larger the operation the greater the saving.—P.L. V



[Guide photo]

The completely self-protected transformer cuts installation costs on the farm of Bob Manzer, Thamesford, Ont. Electricity plays a big part in today's annual production of half a million pounds of poultry meat



Commerce financing and bank services helped this farmer build and stock a modern feedlot. Are you planning any purchases? Come to the farmer's bank.

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The Savage 24 comes in four combinations of caliber and gauge: 22 long rifle or 22 magnum on top of either a 20 or .410 gauge shotgun barrel with 3 inch chamber. The deluxe 24-DL with satin chrome frame, checkered Monte Carlo stock and fore-end, is \$75.55. The standard 24-S, with side opening lever, is \$58.15.

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Plastic Grain Storage Cover

20 x 20 \$9.75; any size 2¾¢ per sq. ft.

SPEERS PETROCHEMICALS LIMITED
1462 Erin St., Winnipeg 3, Manitoba

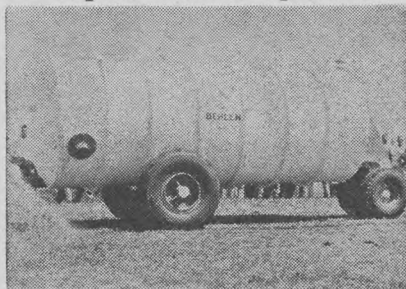
What's New

New Plow



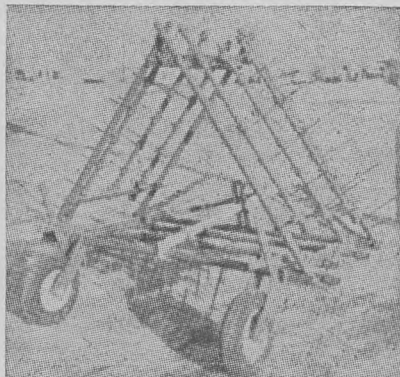
This heavy duty, mounted plow is designed with a vertical clearance of 28¼ in., a new type of trip and a new trash board for maximum trash clearance. "Backbone" construction is used to give rigidity for the beams. Options include mechanical or hydraulic width adjuster. (Massey-Ferguson) (555) ✓

Liquid Manure Spreader



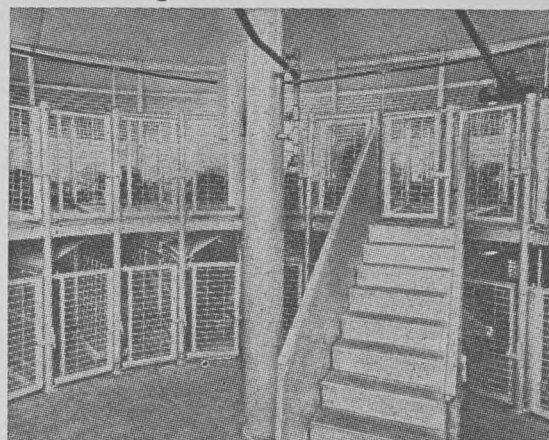
This new line of liquid manure spreaders includes one model with a capacity of 3,500 gallons. They can be equipped with either a pressure system or mechanized thrower. The "thrower" system with in-tank agitator is recommended for high-fiber liquid cattle manure. Tanks are equipped with a fluid level indicator to show when they are filled. An adjustable valve on a 10-inch unloading tube controls the rate of application up to 500 gallons per minute and permits a uniform swath up to 40 feet wide. (Behlen Manufacturing Company) (556) ✓

New Harrow



The Westfield Harrow-Flex is designed to tow behind discer or drill while seeding to save one harrowing operation. It is equipped with a pole to steer it and easily breaks down into transport position. Strong rubber-tired transport wheels are bearing mounted. The self-cleaning teeth have been designed to adjust to packing or weeding positions. (Plett Industries) (557) ✓

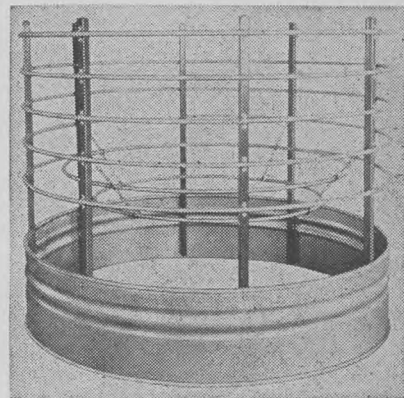
All-Steel Hog House



This all-steel confinement hog house is 48' in diameter, features a fully controlled environment, automated feeding system, double-deck pens, and an exclusive rapid waste removal system, and other advantages designed to increase efficiency. Insulation and water cooling are among the features of the controlled climate in this hog house. The 2 decks of 23 pens each will hold 23 sows and about 450 pigs. (Black, Sivalls and Bryson, Inc.) (558) ✓

Rolling Hay Feeder

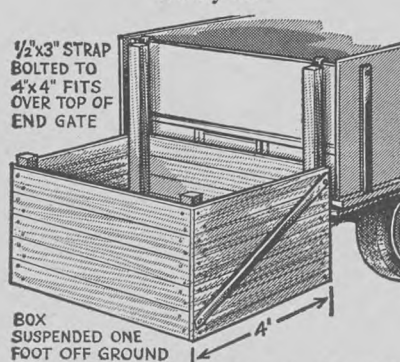
Here is a round steel hay feeder that has been designed so that it can be tipped on its side and rolled to a new location whenever feedlot conditions require a change of feeding ground. The rolling feeder is 6' in diameter, 5' high overall. It will handle from 27 500-lb. calves to 16 1,200-lb. cows. Two adjustable rings are provided to keep the hay at the right depth in the lower section, preventing spilling out and trampling. (Hudson Manufacturing Company) (559) ✓



For further information about any item mentioned in "What's New," write to WHAT'S NEW, Country Guide, 1760 Ellice Ave., Winnipeg 21, Man.

Workshop

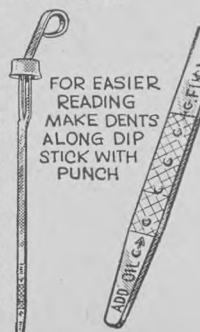
Carry-all



When the truck box is hoisted, this extension rests on the ground for easy loading of livestock or equipment. To transport simply lower truck box and extension will clear the ground.—B.W., Alta. ✓

Light Oil Indicator

Warm light-weight oil is often hard to see on the dip stick. If you punch a series of dents on the dip stick the oil will collect in these depressions and will be easily seen. — B.C., Calif. ✓



Thermos Carrier

A sturdy, safe container for the six-cup size thermos bottle can be made from a container for welding rod metal. Add a handle and pad the container with heavy cardboard. —R.H., Sask. ✓

USE WELDING ROD CONTAINER TO CARRY LARGE THERMOS



Chemical Safety

When you burn empty chemical containers do it where poisonous fumes will not concentrate and avoid breathing the smoke.—H.J., Penna. ✓

Longer Cultivator Wear

To lengthen the useful lifetime of cultivator shovels, weld a piece of half-inch iron on the point of the shovel. This will make the point last longer. — J.W., Alta ✓





Illustrated
by
MANLY GELLER

OLD JOE'S GLOVE

by
LUCILLE DUBORD DONNELLY

DAVE GLARED at Julie. She sat on the train seat, staring out at the deserted station platform. The busy summer months had ended and the small resort town had resumed its doze in the sun.

"For gosh sakes, Julie," he said, "grow up!"

Jerkily, he smoothed the brim of his ranger's hat. The impulse to shake her was strong. "For the last time," he said, finally, "will you get off this train and be sensible about this?"

Julie turned. She wasn't pleading now. "Dave, I'm not sure about us. I'm not sure that we're ready for marriage, either of us."

"If you leave now, don't bother coming back!"

Her face went white and for a moment he wished he hadn't spoken so sharply. But when she made no reply — just kept staring at him in that strange sort of withdrawal — his patience left him.

"I mean it, Julie!"

She looked away. "I can't argue any more, Dave."

He suspected she was crying again. He had to get out of there. "I'm going to the office to pick up my supplies," his words were clipped. "And then I've got to check on that dog."

"Good-by, David," Julie avoided his eyes. "I'll . . . I'll write."

"Good-by, Julie," he said flatly, then walked away quickly.

When he left the office an hour later, Dave heard the diesel whistle for the railroad crossing on the edge of town. Just two years ago, when Julie had come to Jasper Park on vacation, the old steam engines were still being used through the winding, treacherous mountain passes. Julie had returned to Jasper in the fall, and, later, for every week end that she could manage away from the hospital where she worked over two hundred miles away, in Edmonton. Six months ago, she had seemed ready to accept the life of a ranger's wife

in a remote corner of Canada's largest national park. The park covered four thousand square miles and the Poboktan Creek area — with the wildlife in it — was Dave's immediate responsibility.

It figures, he thought grimly, she arrived by steam engine but it's a diesel that's taking her away. Steam engines, and a ranger's life, just weren't fancy enough, after all.

"You Moran?" The man leaning against Dave's truck wore the unmistakable garb, and air, of a man neither familiar — nor happy — with the trappings of civilization.

"Yeah," Dave said. "You bring me that dog?" My-a-ken — the dog — was tied up at the Express office. He looked more wolf than dog and growled menacingly as the men approached.

"He Ol' Joe's dog," the man volunteered. "Now Ol' Joe dead."

(Please turn overleaf)

"How much?" Dave asked him. They settled for \$10 and a glove — Ol' Joe's glove. Without the glove, the man said, My-a-ken would do nothing. Dave took it and threw it in the back of the truck.

Long before Dave turned into his red-shale driveway, seventy miles from town, the sun had been smothered by Catacombs Mountain. Dave was hungry and irritable; breakfast had been at dawn and he hadn't bothered to eat in town. And



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guess —
be sure to
write the
correct
address.



DM150FP

he didn't expect he'd ever see Julie again.

She had loved the sweet solitude of his mountain retreat, he knew. He had watched her — face turned to the balmy breeze — breathing deeply of the crisp almost crackling air; soaking up the warmth of the sun as it sparked the valley and ignited into a thousand diamonds the waters of the creek that raced in back of his three-room log cabin. He'd been sure, dead sure. But the hours they had shared — and the dreams they had dreamed — hadn't been enough for Julie. Now, the thought of the empty cabin — and the realization that it would seem emptier still with Julie lost to him — put a still sharper edge to his temper.

The dog growled when Dave got down from the truck.

"Settle down, you fool animal," Dave said. "I'll get to you later."

WHEN HE RETURNED to My-a-ken, a full October moon lighted his path. The brisk night air smelled of pine cones and fallen leaves. From now until the snow came, instead of the summertime policing of his area, Dave's day would be filled from dawn till dark with involved preparations for the year ahead. Training a dog to the sled — especially such a wild one — would be no picnic, and Dave would have preferred more time for it.

He threw a chunk of raw beef into the truck, expecting the dog to pounce upon it hungrily. My-a-ken sniffed at it, then snapped at him.

"Be stubborn!" Dave said. "And if you can't learn our ways out here, you can get out, too!"

And the empty cabin waited.

He wasn't kidding himself. He had given Julie plenty of time. "You must be sure," he'd told her, "sure that you can take the isolation of a ranger's life." What hurt now was that there hadn't been enough time. There hadn't been enough love — on Julie's part, at least.

My-a-ken would run, too, the minute he was set free. Tied up in the tool shed, asleep on the old blanket that had been Big Red's until he died in the spring, My-a-ken still belonged to Old Joe. His memories had not been buried with the old Cree, any more than Julie had been able to leave her past behind.

It had been simple for Dave. He'd been raised in Jasper. Even as an awkward ten-year-old, he'd hung around Jakeman's stables — O. A. Jakeman, Guide and Outfitter — begging to be allowed to saddle the horses and help check out the gear. He could hardly wait to finish high school to hire on with Jake. But he was too independent to stay; and he'd been the youngest ranger ever hired in the park. He knew, too, that he had lived up to Jake's recommendation of his ability.

Dave took great pride in being self-sufficient out here in the wilderness. But when the winter snows set in to stay, and his pony and three pack-horses were put out to winter on the open range, a good pack-dog became indispensable for the winter patrols into the interior. Big Red had been all the company he'd needed until he met Julie, that sum-

mer, at the Saturday night dance in Spero's Hall.

On a dance floor crowded with pretty girls — girls who flocked, every holiday season, to summer jobs or vacations in the resort town — Dave had eyes for no one but Julie. He had never known anyone like her before. She was shy, but she laughed easily and often. And at no time was she more enchanting than when she first saw the old bull-moose which even now was ambling to the salt lick Dave kept in the clearing. Old Crooked Horn, Julie had called him.

"He keeps coming back, Dave," Julie said, a year later, "just like I do, I guess."

But that was before he had asked her to marry him. That was before he could know, for certain, that it wasn't just the excitement of a tourist beehive that lured her back.

Dave had to be sure. It had always been that way with him.

Three days later, Dave chopped raw liver into small pieces, dug through the sawdust in the icehouse for a bone, and took it to the tool shed. My-a-ken, though he had drunk a little of the water, had eaten none of the food that Dave had placed before him.

"Hi, My-a-ken." Dave received the expected response — a low, grumbling growl.

Suddenly he remembered the leather glove which had belonged to the old Cree. "Just a minute there, boy," he told the rebellious animal, and went to get the glove from the back of the truck.

He put on the glove and pushed the dish of meat bits within the dog's reach. My-a-ken sniffed the glove, sniffed at the meat. Again, he returned to the glove — remembering Old Joe, thought Dave.

Finally, My-a-ken nibbled at the meat. Then he gulped the morsels down wolfishly.

Dave grinned. "Learned your lesson, eh?" But he remembered to wear the glove from then on.

IN THE DAYS that followed, he spent much of his time with My-a-ken. He needed company. No word had come from Julie. Not that he'd expected any; she had shown clearly enough which meant most to her — marriage to him, or life back in the big city.

"You'll come to heel, My-a-ken," Dave lectured the dog, "if you're smart. You'll forget Old Joe and his stupid glove."

For Julie, though, love hadn't been enough.

Dave had hung Big Red's harness on a nail in the shed close enough that My-a-ken would become familiar with the smell of it. By the end of the week, with the help of Old Joe's glove, Dave had managed to get the dog used to the feel of the leather strap sliding over his neck and back, then around his belly. Already the first snows blanketed the mountain tops, and Dave knew he had little time left. He would have to test the dog on the trail soon.

That evening, he talked softly to My-a-ken while the dog ate. Then, wearing the glove, Dave buckled the

harness. He released the rope from around the dog's neck.

My-a-ken was free.

"You can trust me, boy. See? Here's Ol' Joe's glove. You can trust the glove. You can trust me." For a moment Dave thought that the dog would bolt out of the open tool shed door. But My-a-ken growled deep in his throat and returned to the bone on the floor.

Next day, Dave harnessed My-a-ken, then buckled the empty sled onto the harness. At first the dog refused to budge. Then he lunged ahead and ran effortlessly down the trail. All day he kept distant from Dave but, when Dave placed the dog's evening meal near a tree stump and stepped back, My-a-ken trotted over to the stump to eat.

Dave was delighted, even while admitting it was a hollow victory. My-a-ken would not have yielded to his command, Dave knew, without Old Joe's glove to bridge the barrier between them. Like Julie, the dog's memories of the past were too strong to be broken. And until My-a-ken could accept a new master Dave knew he couldn't be trusted.

During the next month, on short two-day trips into the interior, Dave hauled supplies in by pack-horse over the narrow trails to the ten cabins which gave him shelter when he patrolled his district. Gradually, between the man and his dog, understanding grew into respect. On a rare occasion My-a-ken might even snuggle against Dave's leg as Dave bent to rub the wolfdog's head.

When it was time for the first full patrol of the district — a five-day trip — Dave felt, at last, that My-a-ken had accepted him. He was to discover, however, with some regret, that My-a-ken's respect was dependent upon the availability of Old Joe's glove.

The third morning out, Dave buckled the sled onto the dog's harness, ready for departure. "Mush!" he called. But as he passed the cabin he noticed that the wooden slab which barred the window had slipped from its groove and he stopped to fix it. He was still wearing Old Joe's glove and tossed it to the ground to adjust the catch. The job done, Dave walked away, forgetting the glove where it lay.

It was dusk when he reached the next cabin where he would camp for the night. When he approached My-a-ken, the dog turned on him, snarling his defiance. Too late, Dave remembered the glove. Struggling, he managed to avoid the dog's vicious teeth and unhitched the harness. With a loud yelp, the half-wild dog tore free and bounded into the heavy timber.

The next morning My-a-ken had not returned. Dave snowshoed back for the glove. He was wiser now, for he knew that My-a-ken would never forget Old Joe. Weary and alone, he continued his rounds.

First Julie, he thought bitterly, now My-a-ken. Neither of them strong enough to give up the past to share his life. Better that he should find it out now.

But My-a-ken did come back.

He limped into camp four days after Dave had returned to the

homesite. Near exhaustion, the wolf-dog headed for the tool shed where he pawed at Old Joe's glove until he fell asleep, his nose tucked beneath its warmth and familiarity.

From within the cabin, Dave watched silently. Loyalty for the glove brought you back, he thought ruefully. How that dog must have loved Ol' Joe! And how could Dave have believed that he could replace the old Cree? He'd been a poor substitute for Julie too, and one she, also, couldn't accept.

There were times, then, when My-a-ken grew restless, the heady freedom of his wild ancestry running warm in his veins. For days he would disappear, lured by the call. Always, he would return; sometimes triumphant, more often bruised from a clash with his half-brothers. Only once did Dave glimpse him in his wild state.

As the spring thaw gained mastery over the land, only sun-baked patches of snow clung to the trails. On patrol and camped at an outpost cabin, Dave was awakened with a start by the twittering of the squirrels and the nervous neighing of his horse, tethered in the lean-to a few yards away. As he hurried to investigate, dawn was breaking.

Three hundred feet away, a wolf pack of six crossed the far end of the clearing. Last in line, his great head held high and proud, My-a-ken's long stride kept pace with his savage companions.

The pack disappeared into the dense brush, but My-a-ken slowed his gait, stopped. He looked toward the cabin — saw Dave. For just a moment the wolfdog hesitated.

Then he turned and loped after the pack.

SOME THREE WEEKS later, weary from the day's work, Dave sat on the porch step of his home cabin. He was lonely, lonely for Julie, lonely for My-a-ken. This was the longest time the dog had ever stayed away. Old Crooked Horn, now Dave's only companion, moved out of the shadows, heading for the salt lick.

"Would you come back," Dave whispered to the night, "if I took away the salt lick?"

When My-a-ken had come back, it was only for that dangled glove! Must he have a lure for everyone and everything? Why couldn't that fool dog have accepted him for himself? Why couldn't he have forgotten Old Joe and the glove, and his untamed brothers?

Julie had made her choice, too.

She had written, at first, but it had been two months now. She was busy at the hospital; everything was fine, she wrote.

He didn't reply. What was there to say? She knew how he felt. The rest was up to her. At Christmas-time, however, when the cabin walls became a prison, he had phoned the Express Office in town to have them wire her a dozen roses.

Just like that fool dog, Julie couldn't separate the real thing from the trappings. When he caught up with My-a-ken — if he ever did — he'd thrash the wildness right out of him! Maybe that's what he needed: a reminder that there's a whole lot more to life than dreams

and memories. My-a-ken was his dog, wasn't he? He'd paid for him.

He had paid for Julie, too, in a way — with hopes and plans and dreams. Now he had nothing.

Dave was startled out of his reverie by a sound near the tool shed. It had grown too dark for him to see clearly. Not wanting to surprise a wild animal that might feel cornered in unfamiliar surroundings, Dave began to whistle softly. He peered closer.

It was My-a-ken!

Dave watched as the dog sniffed and circled the blanket, searching for Old Joe's glove. When he found it, he nosed up to it and lay down.

"Come here, boy," Dave heard his own voice. "There's a good boy.

Come here, My-a-ken." Again he whistled softly.

My-a-ken rose, Old Joe's glove held between his teeth, and came toward Dave. The dog dropped the glove at Dave's feet, then he lay down quietly, his paw over the glove.

Cautiously, Dave withdrew the glove. He put it on and rubbed My-a-ken's huge, gray head.

"Welcome home, My-a-ken. I've missed you."

Later that evening — Dave could not have said how long — he sat down to write to Julie. Under the kitchen table, My-a-ken's long nose rested on his knee.

Dave had to tell Julie that now he knew the loneliness — and under-

stood the ties that were forever bound to the past. She had to know that he no longer resented My-a-ken's memories of Ol' Joe. Dave could admit, at last, that he needed My-a-ken's friendship even more than My-a-ken needed his. He needed Julie, too, and he loved her.

Julie, Dave wrote, when My-a-ken comes back from his visits to the past, Ol' Joe's glove will be here, waiting for him.

So deeply engrossed was he in his letter that he started at the jangle of the wall telephone.

It was Julie.

"Dave," she sounded as if she was crying again, "you haven't answered my letters." She went on, breathlessly, "I have a few days off . . ." v



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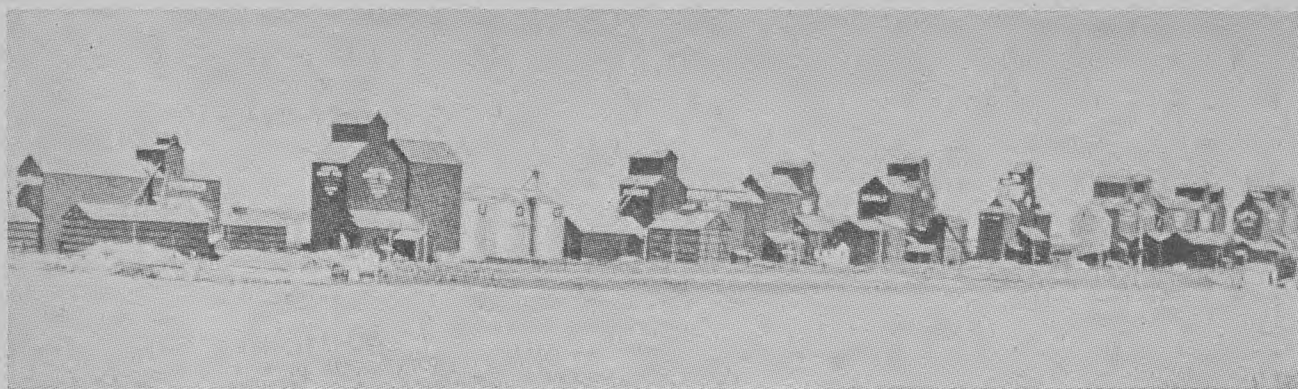
14-21 Day Winter Economy Excursion Return Fares (effective November 5th)

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We have more flights to jet you there!

AIR CANADA





Vulcan . . . one of the most competitive grain points in the West . . .
 7 companies buying grain . . . total elevator capacity 2,092,000 bu.
 United Grain Growers is doing well, says Vulcan farmer Orlo Doane, because:

"U.G.G. is in there for the sole



"I fertilize everything," says Orlo Doane. "I spend between \$1,000 and \$1,200 a year on fertilizer from U.G.G. Brings the crop along faster as well as producing more. I got my return on it last year . . . money well spent."

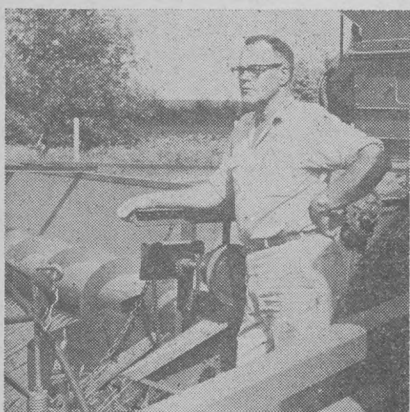
"Where the farmers are concerned financially and on the board, it's bound to be good for all the farmers." That's the opinion of Orlo Doane who farms about 1,000 acres near Vulcan, Alta.

Mr. Doane acts on his beliefs. He serves as Chairman of U.G.G.'s Local Board at Vulcan and he has attended several U.G.G. Annual Meetings as a delegate. He is noted for thinking his ideas out clearly, and then standing up and expressing them. "I think anybody that is out to help himself and his people and his country in general, it's his duty to go to his Company," says Mr. Doane. "If he has a suggestion that might help people in general and his Company and himself, why shouldn't he express himself? I think this is good business."

Mr. Doane is particularly concerned to see that able farmers lead United Grain Growers. "I had the privilege of nominating Hugh Dickson, our newly elected U.G.G. director from Warner, Alta. I've met Hugh at previous Annual Meetings and we seem to get along pretty good together." With Mr. Dickson from Southern Alberta, L. F. Snyder and Allan Smith from Central Alberta, and J. I. Stevens and W. E. Donaldson from Northern Alberta, all on the U.G.G. board of directors (along with 7 other farmers from Manitoba and Saskatchewan), Mr. Doane thinks that Alberta farmers have a strong voice in the affairs of a big organization.

"United Grain Growers is prairie-wide and I think this is good. Builds a stronger company. They're bound to come up with a better policy. They get more opinion. It's a cinch that the opinions of the Saskatchewan farmer and the Manitoba farmer and the Alberta farmer are going to be dif-

purpose of helping farmers”



Orlo Doane's father homesteaded on this farm in 1904. Now the farm has grown to 1,000 acres, mostly grain but including 120 acres of tame hay to support a small cow-calf herd.

ferent, and they are all voiced at the U.G.G. Annual Meeting. I think this is good.”

The farmers from different provinces may send different ideas to the U.G.G. Annual Meetings, but Mr. Doane is sure that basically they all share the same interests in the grain business. “I’ve travelled quite a lot, and I’ve talked to lots of farmers in different places, and they’re all similar in thought as well as behavior.”

Mr. Doane is a firm believer in farmers thinking out their own problems at meetings of their Local Boards. “A lot of good information comes out of the Local Board meetings. This is a big advantage for United Grain Growers. They get more personal contact with farmers by having these Boards than the companies that don’t have them. That’s for sure.”

Hard thinking by the farmers themselves leads to effective action, not just noise. “Doing it through a Board like this gives a company what they want to know about an area better than a big group getting together and marching around and attempting to show their influence that way.”

Do farmers really arrive at the best



Mr. Doane consults U.G.G.’s practical farm information service, *The Grain Grower*. “I get *The Grain Grower*. I think that’s quite a set-up. I refer to that many, many times. We were stacking bales and we got into a little argument about how to build a bale stack and that proved it for us. It’s indexed very well. It’s on my desk all the time. I know of a number of farmers who haul grain to other companies who would like to have this service. They can if they see the U.G.G. agent.”

decisions through this process? Mr. Doane says they do. He points out the financial policy of U.G.G. which farmers have established with their votes. Patronage dividends and borrowed capital earn some interest from U.G.G. Mr. Doane doesn’t approve of



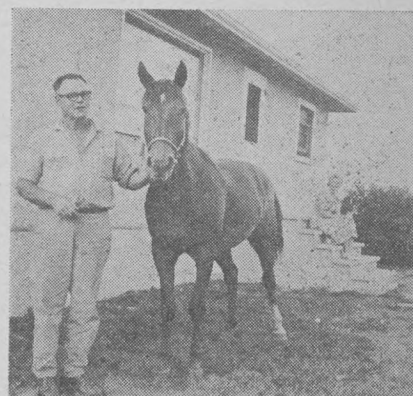
U.G.G. agent Ken Reid of Vulcan seals a boxcar. The 374,000 bu. capacity elevator he manages has been plugged since early summer. “Ken Reid is a good buyer,” says Mr. Doane.

anybody holding farmers’ money and not paying interest. “I think any company could do business quite easily if they could get capital interest-free. I could easily go places if I could get money without paying interest on it!”

Farmers like Orlo Doane keep United Grain Growers in close touch with the real needs of farmers by expressing their ideas. “I’m sure the Company feels about it this way, too,” he says.

“United Grain Growers isn’t lacking in competition with the other companies. I think competition is of quite a benefit to the farmers in grades as well as buyers. I think U.G.G. has done a great deal to protect the farmer as he is protected today. It’s a farmer-owned Company, and it’s in

there for the sole purpose of helping farmers. There’s quite a few competitive companies and I am sure they wouldn’t be buying grain as they are today if it wasn’t for U.G.G.”



“I wouldn’t live anywhere but here,” says Orlo Doane. His cow horse doubles as a gentle riding horse when small children visit. Mrs. Doane paints. Her current project is a dramatic scene of cowboys roping a bear. Two daughters are in high school and a grown son works full time on the farm with Mr. Doane. The Doane men are busy now adding a garage and recreation room to their comfortable house.

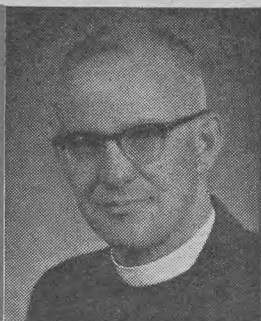
United Grain Growers does pretty well even at the most competitive grain points because men like Orlo Doane of Vulcan take part in the thinking that sets policy for his Company.



Over 760 Farmer-owned Elevators

Let's Think It Over

by THE VERY REV. M. L. GOODMAN



The Best Years

Someone asked a child what he liked about school and he, of course, replied, "recess."

Few children would admit to liking school and we elders try to tell them that the school period is the best time of their lives, etc. etc. Why do we say that *now*, when we ourselves didn't think it was so during our own school days?

Isn't it how you feel about a thing at the time that counts and not the things you see afterward when it's too late? If, as children, we didn't appreciate school as we should have, perhaps as adults we are not appreciating our present experience as we should. If we failed to recognize certain joys and values then, it follows that we may be missing certain joys and values now.

The growing child looks forward to being an adult. The grown child, the adult, has come to the conclusion that being an adult isn't all that wonderful. In this he is still immature, for the only joy he can have is the one to be discovered in the "now." Tomorrow and yesterday are of no account. They are effectively outside our experience. God has put into today all that we need for joy, happiness and satisfaction. Maybe a child can't be expected to know this, but an adult should.

Suggested Scripture: Psalm VIII.

At the Sound of the Bell

The visitor to Britain becomes accustomed to the sight of swans. There are nine thousand of them on the Thames alone. (Every year they are counted by uniformed officials known as "swanuppers.") Perhaps the most famous swans of all are the ones that live in the moat outside the Bishop's residence in the city of Wells. These birds have learned to ring for room service!

On the wall of the gatehouse there is a small bell with a length of rope hanging from it within reach of the swans. When they are hungry they simply pull the rope to ring the bell, and the gatekeeper feeds them. We heard them at it last spring and saw them being fed.

The bell makes quite a racket as the swans pull the rope vigorously. It seemed to me to fairly represent those human appetites which set up their own insistent clamor.

Oscar Wilde once remarked that the "best thing to do with a temptation is to give into it." The man who loves God and values his own integrity realizes that this is not so. He doesn't have to give in every time the bell rings.

This is his struggle and this is his glory as a man.

Suggested Scripture: Hebrews XII, verses 1-17.

Shrunken Men

One of the great areas of concern today is the rapid increase of the world population. In India alone the increase is five million a year. Someone once made the weird suggestion that scientists should set out to discover a way to shrink men so that we would take up less room.

Somehow or other this idea isn't very appealing, is it?

Truth to tell there are a lot of shrunken men around already, men who shrank precisely because their world got too small for them. The very walls they built around their own lives has crowded in on them. What seemed like comfort and a measure of success has turned to dreariness. This world of shrunken men is no happy place. Every shrunken man is a sad witness to the truth that we must grow *big* or we will grow *small*. We must grow "out" or we will surely grow "in."

Our world must always be a little bigger than we are, so that we are always reaching out to fill it up, to explore it and after a while to breach its walls and go beyond it. We cannot draw it in around us like caterpillars building cocoons. It must always be a little bigger than we are, so that there is room to grow.

We must be dissatisfied with where we are and what we are, so that we may be prompted to grow. This does not mean that we are to live hectic and discontented lives without any peace. Not at all. Real peace is a sort of dynamic contentment. We are not sitting still; we're progressing in understanding, in love, in nearness to God. You don't have to sit still to be at peace. In fact, some of the most unhappy people in the world are just sitting still.

Suggested Scripture: St. Matthew XIII, verses 1-9.

Inset in built-in wall of kitchen, the piano is handy for use and supervised practice. Sliding panel of mahogany wall covering locks into raised position pictured here. Music student's mother doesn't think piano a decorative piece of furniture and sometimes wishes it out of sight. (See below.)



[Guide photos]

Now you see it, now you don't

Ideas of Interest



The mahogany panel slides down to conceal piano when not in use, revealing portable television set, stereo controls and records behind own sliding panels of chip-board. Top section, faced with blue fabric that blends with room's color scheme, houses stereo speakers

Vertical drawer-front storage row stores logs for fireplace in bottom bin, record player, typewriter desk, two file drawers, and farm account books at highest level. This farm homemaker feels kitchen location for fireplace offers maximum enjoyment of it



Lightest possible 1/4" mirror, lightly framed in gold-painted wood, conceals or reveals kitchen pass-through as desired. Mirror slides along pull-out closet rod bolted through wall. China cupboard above pass-through space opens to both kitchen and dining room sides



[Guide photos

Parent-turned-student Arnold Olson took a week away from farm chores to advance his musical education. His 11-year-old son Gerald (r.) plays sousaphone

Home and Family

by ELVA FLETCHER

AS THE SOPHISTICATED rhythm of a tango spread out across the campus of Briercrest College at Caronport, Sask., one Saturday in July, a pleased smile spread over Frank Connell's face. "It's really amazing that they can make music together in so short a time." His smile broadened. "It means they must be good." He was speaking of the youngsters who were completing a week of intensive study and practice at Saskatchewan's fourth summer music camp.

Today's farm young people, of course, have many more opportunities to develop their individual talents and skills than their mothers and fathers did. Schools have better equipment. Libraries are more accessible. They can learn new skills in a wide variety of 4-H club projects, to swim and dive through Red Cross water safety classes. But, until recently, there weren't quite the same number of opportunities for them to extend their musical education. Now, however, there are opportunities for those who are musically inclined (and Frank Connell is convinced most of them are) to get advanced instruction at the summer music camps conducted in different parts of Canada. One of the most popular of these has operated at the International Peace Garden (which straddles the North Dakota-Manitoba boundary) for several summers now. Saskatchewan entered the field just 4 years ago.

There were 60 students that first year. This year the total was closer to 200, a few of them parents-turned-students, like Arnold Olson who farms in Saskatchewan's Frontier district. Two of this year's instructors were students the first year the camp operated. Now they are majoring in music and they came back to the camp to help those who are following them.

Seventeen-year-old Maureen Paterson, of Woodrow, Sask., is one of them. Maureen plays trumpet. Why trumpet, one wonders. "I fell in love with the trumpet when I was 11 years old," she laughs, brown eyes sparkling. "The only teacher I could find was at Moose Jaw, 100 miles away. I used to travel 100 miles there and 100 miles back every Saturday for lessons. By the time I graduated from high school I'd decided to major in music." Instructor Lynne Flack, a farm girl-turned-musician, made the same decision. It's this drive to accomplish that has made the camp so successful, according to Frank Connell.

Frank, a softly-spoken Scot, came to Canada in 1958. He'd answered an advertisement for a bandmaster for the Moose Jaw district, having decided that his career as director of music for

the Royal Artillery in his homeland was over. Anyway, he was looking for something new and challenging. He found it in Moose Jaw — instructing Saskatchewan young people in the intricacies of band instruments.

He hadn't been there very long before he could see what he describes as the "dire need for someone to help youngsters." He's been filling that need in the Moose Jaw district ever since in the way he knows best — getting them interested in music and into bands. He started with 40 of them. Now there are some 300 coming from in and around the city. They're so many they need (and have) their own quarters for practices.

He also saw a need to help young musicians in other parts of Saskatchewan. The Canadian Bandmasters Association had already been talking about it. Then, when Frank became associa-

tion secretary, things began to move in the direction of a summer music camp. Saskatchewan's Arts Board got behind the idea. Moose Jaw service clubs and individual citizens took it up. And that's when the summer music camp idea really blossomed.

SOME 200 YOUNG PEOPLE from 21 different Saskatchewan communities; from farms, villages, towns and cities, came to this year's camp. Their age isn't important; but they have all completed Grade 7 or better and played their instrument for a year. They pay \$35 a week, bring their own instruments and borrow heavy equipment — tympani, chimes and the like — from the Moose Jaw Band Association.

They come for a week of intensive training interspersed with classes and recreation. They're auditioned when they arrive and placed in either one of two bands. (Please turn to page 53)

They Set Their Minds to Music

Frank Connell is shown with a few of the farm boys and girls who took in this year's music camp. In this group are (l. to r.) Linda Klemmer, Levern Horvey, Darcy Weston and Sharon Korsberg





Tom Martin counts on sister Kathy to power his self-styled hot rod, above. Both are happy to carry samples of Peggy's (r.) baking in school lunches



[Guide photos

School Bells Toll Lunch Time

FIFTEEN-YEAR-OLD Peggy Martin's first day home from a week at camp was a busy one. She shampooed her winning 4-H calf, mowed the sizable lawn around her Elgin County, Ont., farm home, dispatched the calf club meeting notices for which she's responsible as club secretary, and baked an elegant chocolate cake.

Peggy is the eldest of the Robert Martins' three children. Kathryn is 12, Tom is 10. And there was cake for everyone while we visited one summer day at Fairlea Farms. Peggy sticks to family-tested recipes and follows them closely. She and her mother agreed to share three family favorites with us.

Chocolate cake is a popular feature in the lunch boxes the three Martin children carry with them to school. In the Martin home, as in so many farm homes across the country, school lunch boxes are back in service this month. Peggy takes her sandwiches with her on the school bus, and buys orange juice or milk at school. Kathy and Tom attend a one-room school on the next road. For them, Mrs. Martin packs one food that can be heated on the electric stove there—things such as cheese sandwiches for broiling, foil-wrapped potatoes for baking, individual cans of baked beans and spaghetti, and little meat pies. She also makes up hamburgers and hot dogs, which she foil wraps and freezes in quantity. Individually wrapped, these can be taken from the freezer and packed frozen into school lunches as needed.

Pickles, and carrot and celery sticks accompany the main course. Because bananas suffer from Kathy and Tom's bicycle trip, and the children will only take the time to eat oranges if their mother peels them before packing, it's usually an apple that goes into each carried lunch. Mrs. Martin often tucks in some small surprise, such as a bag of potato chips. But never candy, she told me emphatically. Cookies, cupcakes, and cake provide a sweet ending.

In keeping with her dairy farm home, Kathy takes a thermos of milk in her lunch box. Tom, who doesn't care for thermoses, settles for water available at school.

Brownies

$\frac{1}{4}$ c. melted butter Pinch of salt
2 T. cocoa $\frac{1}{2}$ c. flour
1 c. brown sugar 1 egg, unbeaten
 $\frac{1}{2}$ c. chopped nuts

Preheat oven to 350°F. (moderate).

by GWEN LESLIE

Home Editor

Melt butter in 8" sq. baking pan. Measure cocoa, sugar, salt into mixing bowl; add egg and melted butter and blend well. Stir in nuts and flour. Spoon evenly into baking pan and bake for 20 minutes. Cut in squares while hot.

Devil's Food Cake

2 c. sifted cake flour	1 tsp. salt
$1\frac{3}{4}$ c. sugar	$\frac{3}{4}$ c. soft shortening
$\frac{3}{4}$ c. cocoa	$\frac{3}{4}$ c. milk
$1\frac{1}{4}$ tsp. baking soda	1 tsp. vanilla
$\frac{1}{2}$ tsp. double-acting baking powder	$\frac{1}{2}$ c. milk
	3 medium eggs

Preheat oven to 350°F. (moderate). Grease two 9" layer cake pans $2\frac{1}{2}$ " deep, and line bottoms with waxed paper.

Sift together the measured sifted cake flour, sugar, cocoa, baking soda, baking powder and salt into large electric mixer bowl. Drop in shortening; pour in $\frac{3}{4}$ cup milk and vanilla.

With mixer set at low to medium speed, beat for $2\frac{1}{2}$ minutes, scraping bowl and beaters as necessary. Add $\frac{1}{2}$ cup milk, eggs; beat $2\frac{1}{2}$ minutes longer. Pour into pans and bake 35 minutes, or

until done. Cool in pans on wire racks for 10 minutes. Remove from pans; peel off paper and complete cooling on racks.

Note: To beat by hand, beat briskly with spoon for same times as above, allowing 100 full, round-the-bowl strokes per minute.

Peggy often bakes this cake in one pan $8\frac{1}{2}$ " by $12\frac{1}{2}$ ", then freezes half.

Bachelor's Pudding

$\frac{1}{3}$ c. brown sugar	1 c. raisins
1 c. flour	$\frac{1}{2}$ c. milk
1 tsp. baking powder	$\frac{1}{2}$ tsp. vanilla
$\frac{1}{2}$ tsp. baking soda	$\frac{1}{4}$ tsp. salt
1 T. shortening	

Preheat oven to 375°F. (moderately hot). Grease a 6-cup baking dish.

Sift dry ingredients together into mixing bowl. Mix in shortening, add raisins and milk and spoon into baking dish.

2 c. boiling water	1 tsp. butter
1 c. brown sugar	$\frac{1}{4}$ tsp. nutmeg

Combine boiling water, brown sugar, butter and nutmeg and stir until sugar is dissolved. Pour over batter in baking dish and bake about 25 minutes.

Mrs. Robert Martin is justly proud of Peggy's 4-H homemaking club sewing project work. Mrs. Martin, a club girl herself and an active member of the Women's Institute, leads the 4-H girls' group



This colorful collection
comments on the country scene

Rural Rhymes

When the Corn's Laid By

There comes a time in summer
When we ease up on our toil,
And kind of leave the finish
To the efforts of the soil.
We sit and talk a little,
While we keep a weather eye
On the ears and tassels, knowing
That the corn's laid by.

The young stalks lean and whisper
In a low, exultant tone,
"We won't be watched so closely
Now. We are on our own."
Fact is, we all are thankful,
And our secret reason why
Is, the bringing up is over
When the corn's laid by.

—CLARENCE EDWIN FLYNN

Cold Snap

The north-wind zips, the red leaves
fall,
Old Roan beds down where the grass
is tall!
The sun is staining the clouded west,
Sparrows zoom to their rafter nest!
Wood is packed for the coming
night—

In sudden flurry—the ground is
white.

Mums are heavy on their stem,
Mom runs out to bring them in.
Down in the orchard with sudden
sound

An apple plunks the frosty ground!
Pop flips the latch on the stanchion
rows

And pats the pony's velvet nose.
He shovels corn to a squealing hog
And stops to feed Ole Frisk—the dog.
And then to the house with a cheery
grin

He holds the door till the cold gets
in;

Brushing flakes from his denim
clothes

He stamps his feet and blows his
nose.

Mom ladles the soup and blesses
the bread

And thanks the Lord we are warm
and fed!

—RUTH N. EBBERTS

Deer in the Woods

Where the ferns are deep and the
shade is cool
I will lie and sleep by the dreaming
pool.
Wild lilies scent my woodland bed,
The trees wave softly overhead.
The only sound in the noonday's
heat

Is the oriole's whistle, loud and
sweet.

Through the drowsy hours of the
summer day

I will doze and dream, 'til the sun's
low ray,

Lights the farthest aisles of the
woodland dim

And the brown thrush chimes his
evening hymn.

Then I'll rise, and drink, and break
my fast

And stepping quietly, come at last
Where the fields lie hushed, and the
fireflies' spark
Lights the fairy torches in the dark.
The rabbits come out and the whip-
poorwill
Cries plaintively from the darkening
hill.
All things are peaceful in the night
As I browse and roam in the faint
starlight.

But when the stars begin to wane
I'll wander back to my woods again.

—ALICE E. HAYNES

Hickory Stick Hierarchy

When I was young my adult peers
Insisted some day I'd recall

While pondering over vanished
years:

Those spent at school were best of
all.

Indeed this proverb might have
earned

From me an acquiescent nod,

If all my pedagogues had learned
To spare the child and spoil the
rod!

—LEN G. SELLE

The Homestead

Dawn blushes pink
Above the knarled old rails
Where faintly russet heads
Of pigweed and foxtail
Nod to the morning breeze
Of other days, other morns
When man
His gentle hand
Had raised,
On this now vacant
Farm.

—ALEATA E. BLYTHE

Indian Summer Day

Summer went to battle,

Daubed with painted clay,

A brave and splendid warrior

Who conquered every day.

With flame and power his cohorts

Possessed the fertile field;

Arrows of hateful winter

Bounced off his charmed shield.

Soon, brown and yellow hillsides

Scorched by the burning sun

Showed enemies had rallied,

And summer's reign was done.

Summer came from battle,

Daubed with painted clay;

He's still defiant in defeat

This Indian Summer day.

—N. R. HORNE

Winter on the Farm

Frost is on the garden,

It is time to say goodbye,

To autumn leaves

As winter weaves

Hello across the sky.

Snowflakes flutter downward

To lie upon the ground,

And soon the earth is covered

With blankets soft as down.

Chores of fall are over,

Corn is in the crib,

Hay is in the silo,

Safe from winter's nip.

Time to rest from labors

Around the open fire

And listen to the stories

Of which we never tire.

Yes, winter is the season

To rest from toil and strain,

'Til springtime kisses violets

And makes them bloom again.

—JUANITA JOHNSON

The New Maths

Parents Can Learn Too

IF YOU LEARNED mathematics in the old school, chances are you learned on the basis that 1 plus 1 equals 2. If you watch the 25-week series of TV broadcasts slated for Manitoba teachers on Saturday mornings from September 11 to April 2, you'll get an entirely new slant on today's method of teaching arithmetic.

Several hundred Manitoba math teachers have voluntarily registered for the province's first televised teaching course and they'll provide the questions for five programs in the series.

Most of us, of course, know only too well that there's been a revolution in our school system starting when the larger school division idea took over. There's been a revolution of sorts in teaching methods, too, including this "new" way of teaching mathematics. The "new" method, according to Gertrude McCance, who heads Manitoba's School Broadcasts Department, is anything but new. The method actually dates

back some 100 years. It's only "new" to our present school system.

Until now mathematics in the elementary grades trained students to add, subtract, multiply and divide with the emphasis on speed and accuracy. There was little or no emphasis on helping them to understand the "why" of what they were doing.

In the new method students don't take anything for granted. They'll study the nature of numbers and so return to a study of first principles. This is the reason for the 25-week course that will be presented by Dr. Bernard Noonan, lecturer in mathematics at the University of Manitoba, for the School Broadcasts Department. It's also the reason Miss McCance hopes as many parents as possible will watch the series.

This way they won't respond as one father did when he counted 14 sparrows on the clothesline and his 12-year-old son replied, "Yes, Dad, that's right if you're thinking in base 10. But I see 20 birds in base 7!"

down IN THE MOUTH?



If you are feeling out of sorts half the time, it may be due to a rundown condition. Why not try Dr. Chase Nerve Food? Over the years, its beneficial ingredients have proved helpful to thousands of people just like you. Taken as directed, this time-tested remedy helps improve the blood and, thus, helps restore a general feeling of well-being. The tonic benefits of Dr. Chase Nerve Food can help you feel your old self again.



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Costume Party



3239

No. 3239. A majorette's costume of dress, briefs and hat; cheerleader's skirt and blouse; skating dress. 6-14; Teen 10T-14T. 60c.

No. 3319. Boys' and men's sizes in Ringmaster's costume, formal dress and George Washington period. Child's 6-14; men's 34-36. 60c.



3319



3169



3193

LOOKING AHEAD to Halloween and winter month ice carnivals, we assembled a family-sized costume collection. A well-made costume lives on as a hand-me-down and a stake in neighborly trading.

Fake furs are the most expensive costume fabrics. Be sure to use the cutting layout "With Nap," and cut all pieces with nap running down. Fabrics with definite markings, such as leopard, should be matched. Hand-basting may be necessary and you may need to loosen the presser foot for machine seaming. Some threads may catch in the seams — pull these to the outside with a needle. Press seams flat with tip of warm, dry iron and cut and flatten any darts. Press face down on terry towel, needle board or a piece of fur fabric.

No. 3193. Children choose from panda, lion, cat or leopard, and bunny. Basic costume has attached hood, front zipper. Sizes Small (2-4); Med. (6-8); L. (10-12). 60c.

No. 3169. Boys' and girls' clown costume features raglan sleeves with elastic at cuffs, double or single neck ruffle and clown hat. Sizes 2, 4, 6, 8, 10, 12, 14. 60c.

No. 3274. Front-zippered costume with separate hood gives men and boys a choice of penguin, spaceman or devil with cape. Order in children's 6-16; men's 36-38. 60c.

No. 3318. Girls' and misses' masquerade in colonial costume with pannier overskirt. Puritan, Spanish, Dutch and Gypsy outfits. In girls' 6-14; misses' 14-16. 60c.

No. 3273. Mother and daughter don leg-o'-mutton sleeves, floor length ruffled skirt; or play at shepherdess or modest bather. In children's 6-14; misses' 14-16. 60c.



3274



3318



3273

Country Guide Pattern Department

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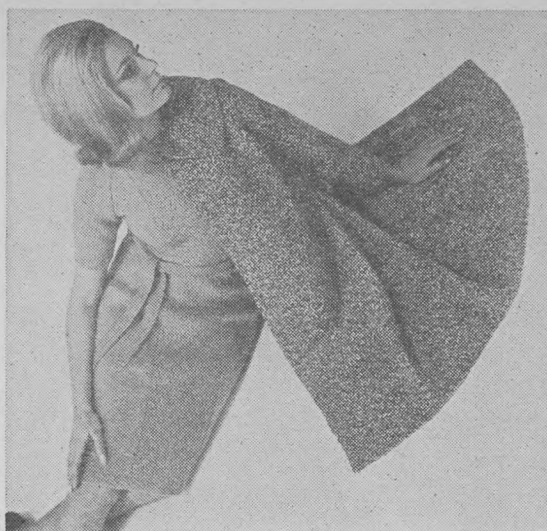
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Pattern No. _____ Size _____ Price _____

To _____



Smart knitted suits for the junior miss are knit from instructions on Patons and Baldwins Leaflet No. 2050, 25¢. Suits in sizes 4, 6, and 8 may be knit from tweed-like Chanella, Knitting Worsted or Shetland Style wool. Raglan jacket may be made with collar or hood, and buttoned or zippered. Skirt can be lengthened as a little girl grows taller.



Patons and Baldwins Leaflet No. 2063, 25¢, highlights a hand-knit fashion twosome in sizes 12-18. Dress features short raglan sleeves, a decorative panel of knit and purl squares down back and front, elastic at waist beneath self tie belt. Squares of knit and purl with Moss stitch borders accent tweedy effect in raglan-sleeved coat.

HANDICRAFTS

Knitwear

Crocheted trims accent two classic raglan cardigans. Patons and Baldwins Leaflet No. 2055, 25¢, offers knitting and crochet instructions for sweaters in women's sizes 14-20. Collar and cuffs on sweater at left are crocheted. Second sweater features knitted collar and cuffs with crocheted picot trim.



Order Patons and Baldwins Leaflet No. 2064, 25¢, for knitting instructions for three fashion-wise shells in sizes 12-18. Two styles are pictured at right; the third features a high rolled collar and choice of two rib patterns.



For handicraft patterns pictured above please address your order to Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

For Safety's Sake

Sunglass Selection

SUN GLARE can contribute to highway accidents by dazzling a driver at a critical moment. It can also contribute to eye and body fatigue. For safety's sake, select sunglasses that will protect your eyes from glare.

For example, don't look for fancy colored lenses. Such colors as yellow, blue, red and brown distort natural colors and may not give you the glare protection you need. Sage green and gray are the only colors that don't appreciably affect a person's color perception.

Select a frame that fits well.

Keep your sunglasses clean. Use a soft cloth or tissue to remove smudges and dust before you put them on.

Wear your sunglasses on bright, cloudy days too. Sometimes there is more reflected light on a cloudy day than on a sunny one.

Don't wear sunglasses or colored lenses for night driving. They impair vision.

Last but not least, be cautious about plastic lenses. There is no known way to make them screen out infrared rays and prolonged exposure to such rays can be harmful. ✓

Cool Top for a Hot Lid

by A. J. DOUGLAS

ANYONE who has ever burned fingers on a hot dish cover while preparing to serve at table, will appreciate this little item.

This handy little knob cover can be crocheted very quickly and provides a safe, convenient method of handling hot lids on casseroles or other covered dishes taken direct from oven to table. If desired, colored thread can be used in the making to match the color scheme of the table and china.

The original cap was made for a knob about 1½" in diameter and fits neatly. In general, the smaller the knob the finer the thread that should be used although a soft cotton thread, about the weight of light cord, provides maximum protection for fingers.

This would be a good saleable item for a bazaar, and is very simple to make.

(Abbreviations: st(s) — stitch(es); ch—chain; sc—single crochet.)

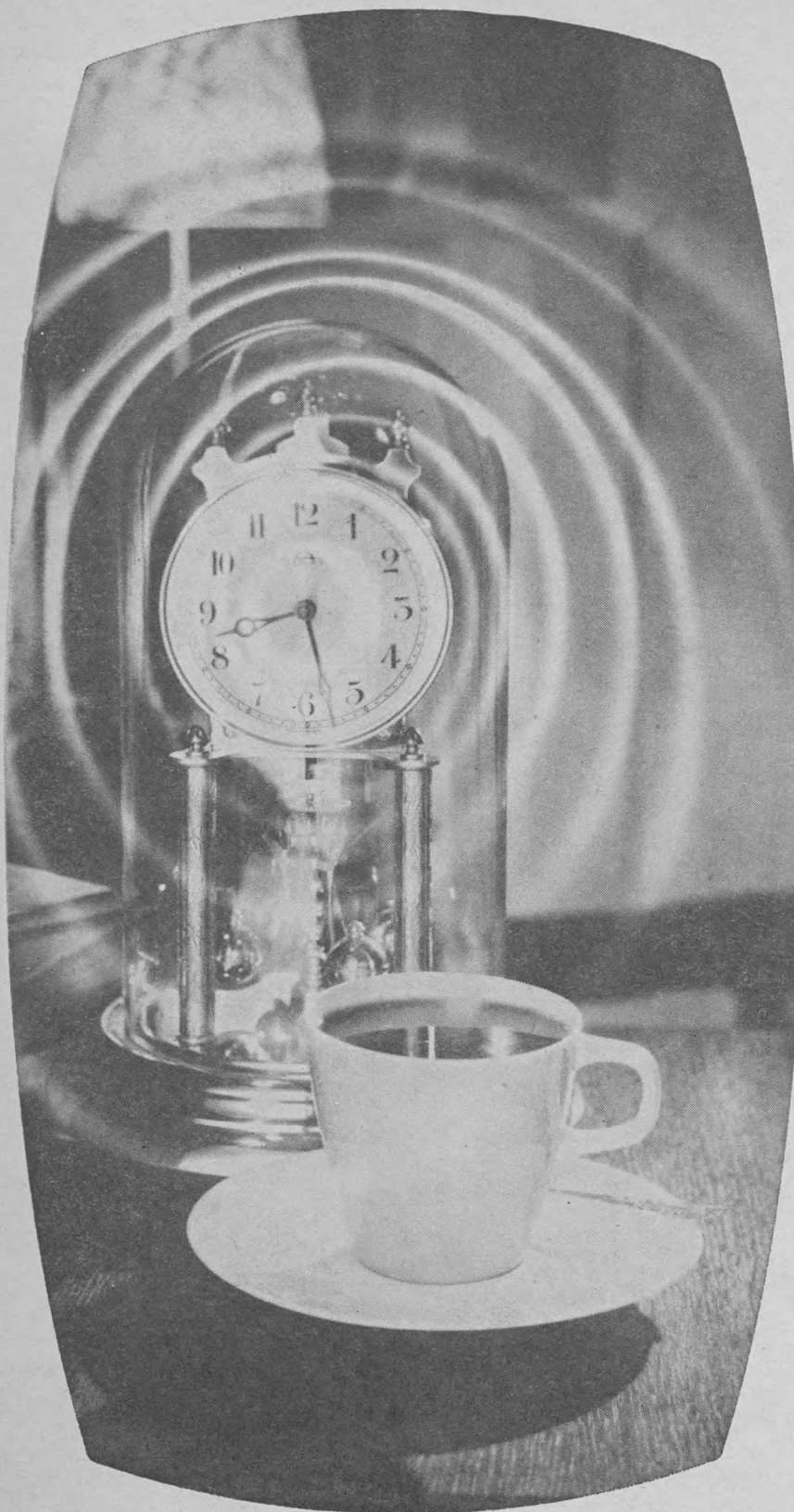
Chain 4. Join.

1st row: 12 sc in circle.
2nd row: 2 sc into each sc (24 sts).
3rd row: Repeat. (48 sts).
4th row: 1 sc into each sc (48 sts).

5th row: 1 sc into each sc (48 sts).
6th row: 1 sc into each sc (48 sts).
7th row: 2 sc into next 2 sts. Miss 1 st. 2 sc into next 2 sts. Repeat all around.
8th row: 1 sc into each sc all around.
9th row: 1 sc into each sc all around.
10th row: 2 sc into each sc all around.
11th row: Repeat.

12th row: 1 sc into each sc all around.
13th row: Repeat.
14th row: 4 ch and 1 sc into every second sc all around.
15th row: 4 ch and 1 sc into every loop all around.
16th row: 5 ch and 1 sc into every loop all around. ✓





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IN THE KITCHEN

Cookies by the Dozen

by **GWEN LESLIE**

Food Editor

CRISP OR CHEWY, wafer-thin or fat with fruit, cookies are in constant demand. Filling the cookie jar can sometimes seem like a full-time job. But when the results are as good, and the recipes as simple as some of these, you should have no trouble recruiting a junior cook as baker's helper.

A no-bake chocolate confection is quickest of all to make, combining peanut butter and rolled oats with a boiled cocoa syrup.

For those who prefer a refrigerator cookie that can be baked fresh as desired, here's one flavored with coconut. Dough may be held as long as one week in the refrigerator, or frozen for prolonged storage.

Orange Oatmeal Cookies are a drop type, quick and simple to prepare. The recipe yields about 36 pebbly-surfaced cookies with a hint of spiced orange. If you hide some in a tightly covered container, you'll find they keep well.

That extra cup of applesauce from the new crop adds moistness to a fruited spice drop cookie made from a family-size recipe.

Date Spice Cookies are both crunchy and chewy. Youngsters could help shape the dough balls and roll them in sugar before baking.

Cocoa Peanut Butter Mounds

$\frac{1}{4}$ c. butter
 $\frac{1}{2}$ c. peanut butter
2 c. sugar
 $\frac{1}{3}$ c. cocoa
 $\frac{1}{2}$ c. milk
3 c. quick-cooking rolled oats
2 tsp. vanilla

Mix sugar and cocoa in a saucepan. Add butter and milk and bring to a boil, stirring constantly. Boil 2 minutes. Remove from heat and stir in rolled oats, then peanut butter and vanilla. Drop by teaspoonful on waxed paper. Let cool thoroughly before serving or storing. Yields about 4 dozen cookies.

Coconut Refrigerator Cookies

1 c. soft butter
1 c. sugar
1 egg, beaten
 $2\frac{1}{2}$ c. sifted all-purpose flour
 $\frac{1}{2}$ tsp. baking soda
 $2\frac{1}{2}$ c. coconut

Preheat oven to 375°F. (moderately hot).

Cream butter and sugar in mixing bowl. Blend in beaten egg. Sift measured sifted flour and baking soda together and stir into creamed mixture, one-third at a time, kneading in last portion of flour with hands. Knead in coconut. Turn dough out on lightly floured board.

Divide dough in 5 portions for easier chilling; form into rolls about $1\frac{1}{2}$ " in diameter. Wrap rolls in waxed paper, pliofilm or aluminum foil and chill in the refrigerator for at least 3 hours. Slice in $\frac{1}{8}$ " slices and bake on ungreased cookie sheets for 12 minutes, or until lightly browned. Cool slightly, then remove from pan to rack and cool completely. Store in covered container. Yields 9 to 10 dozen cookies about 2" in diameter.

Variations:

1. Knead $\frac{1}{2}$ teaspoon each of orange and lemon rind into one portion of dough before forming into a roll. Chill, slice and bake as above.

2. Slice dough as directed, brush each cookie with egg yolk beaten with



Lightly sugared Date Spice Cookies make a munching-good snack with milk

[J. Walter Thompson photo]

a tablespoon of milk. Sprinkle with ground nuts and bake as usual.

3. Top each cookie with bits of candied or maraschino cherries or candied peel.

Note: The uncooked dough may be frozen or may be stored unfrozen in the refrigerator and baked as required. Use unfrozen dough within a week. Thaw frozen dough slightly before slicing.

Orange Oatmeal Cookies

½ c. soft butter
1 c. sugar
1 egg
2 tsp. finely grated orange rind
2 T. orange juice
1 c. sifted all-purpose flour
2 tsp. baking powder
½ tsp. salt
½ tsp. nutmeg
1½ c. rolled oats

Preheat oven to 375°F. (moderately hot). Grease cookie sheets.

Cream butter in mixing bowl. Gradually cream in sugar, then the egg, orange rind and juice.

Combine the measured sifted flour, baking powder, salt and nutmeg. Blend dry ingredients, ¼ cup at a time, into creamed mixture. Blend in rolled oats. Drop dough by the teaspoonful about 2" apart on cookie sheets. Bake for 12 to 15 minutes or until edges are slightly browned. Remove from oven and use a spatula to lift cookies from pan to cooling racks. Store in a tightly covered container. Yields about 3 dozen cookies.

Applesauce Cookies

1 c. bran flakes
1½ c. sifted all-purpose flour
½ tsp. double-acting baking powder
1 tsp. baking soda
¾ tsp. salt
1 tsp. cinnamon
½ tsp. cloves
½ tsp. nutmeg
¾ c. shortening
1 c. brown sugar
1 egg
1 c. thick applesauce
½ c. raisins

Preheat oven to 350°F. (moderate). Grease cookie sheets.

Crush bran flakes. Measure sifted flour, and sift again with baking powder, baking soda, salt and spices. Cream shortening, add sugar and cream well together. Add egg and beat well. Add flour alternately with applesauce, mixing thoroughly. Stir in raisins and cereal.

Drop dough by teaspoonful 2" apart on greased cookie sheets. Bake about 10 to 12 minutes. Yields about 5½ dozen cookies.

Note: If desired, substitute ½ cup chopped nuts for cereal.

Date Spice Cookies

½ c. shortening
¼ c. butter
¾ c. firmly packed brown sugar
¾ c. white sugar
2 eggs
1 tsp. vanilla
2¼ c. sifted all-purpose flour
or 2¾ c. sifted pastry flour
1 tsp. baking powder
½ tsp. baking soda
1 tsp. salt
2 tsp. cinnamon
1 tsp. mace
½ c. chopped pitted dates

Preheat oven to 350°F. (moderate).

Cream shortening and butter until light. Gradually cream in combined sugars and beat until fluffy. Beat in eggs, one at a time, and continue beating until well blended. Add vanilla.

Sift flour, baking powder, baking soda, salt, cinnamon and mace together. Blend gradually into shortening mixture. Fold in chopped dates. Drop by teaspoonful on waxed paper. Roll each piece of dough into a smooth ball, then roll in white sugar and place 1½" apart on ungreased baking sheets. Bake about 15 to 18 minutes. Remove from pan and cool on wire racks. Yields about 5 dozen cookies.

★ ★ ★

Key to Abbreviations

tsp.—teaspoon	oz.—ounce
T.—tablespoon	lb.—pound
c.—cup	pt.—pint
pkg.—package	qt.—quart

Homemakers' Hints

I bought a second laundry basket to speed up wash-day sorting; soiled laundry can be sorted quickly by placing whites in one, colors in the second. It also means I have one basket for dry clothes while the other holds those being put through the ringer.—Mrs. H. L. Perlett, Tugaskie, Sask.

* * *

I start a new bottle of ketchup by sticking a soda straw through the bottle neck to lead air in.—Mrs. J. Sikora, South River, Ont.

* * *

Small children often have difficulty tying their rain hats. Cut off the ties to an inch or two in length, then sew enough ¼" elastic to the short ends to permit the child to slip the hat, chin strap and all over his head.—Mrs. J. Hartman, North Surrey, B.C.

* * *

To save steps doing housework, I start cleaning in the kitchen after breakfast, collecting in one place any items that belonged in other rooms. When I'm ready to move on to the other rooms I take these things too.

Things which belong upstairs I place on the stairs, to be taken when I must make the trip anyway. You'd be surprised how many extra trips from room to room can be saved in this way.—Mrs. W. P. Berry, Daysland, Alta.

* * *

When I buy terry toweling by the yard, I cut it in desired lengths and then instead of hemming, I run four rows of sewing machine stitches across the ends, ½" from the edge. During washing and drying a fringe forms automatically, but no raveling occurs.—Mrs. Tom McKeown, Campbellford, Ont.

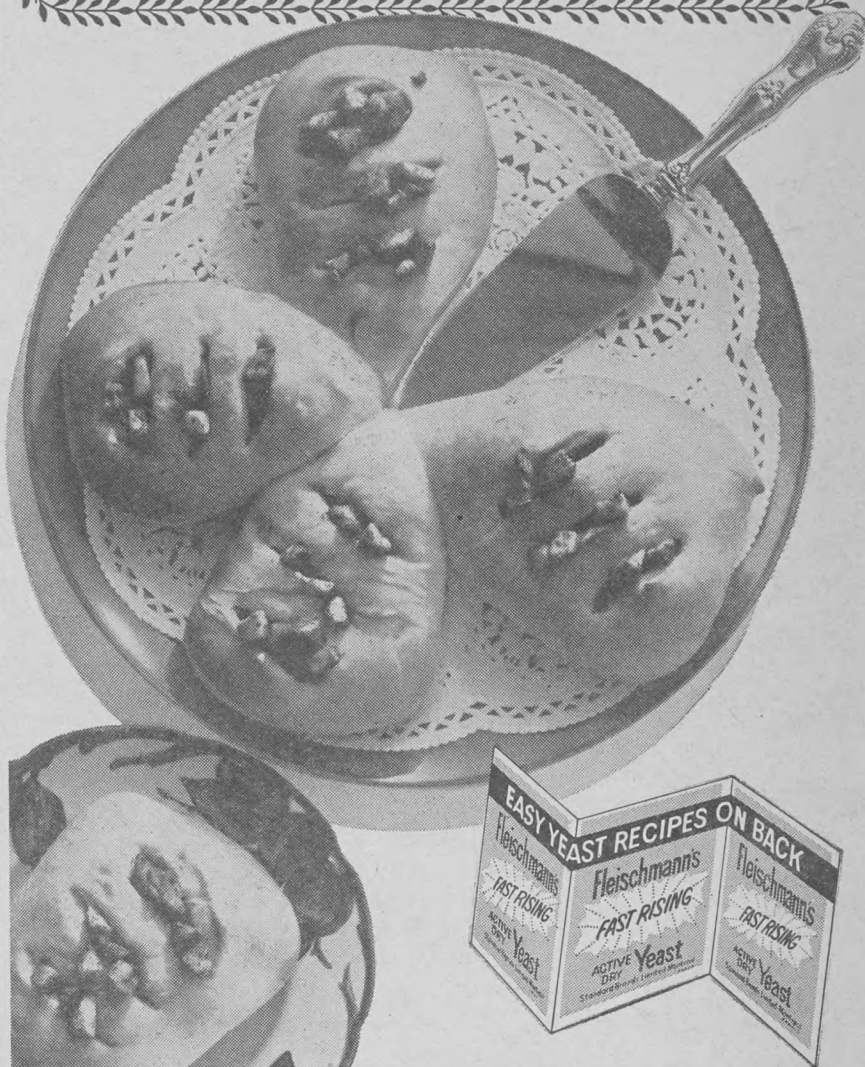
* * *

My husband likes me to knit the round shirring elastic into his sock cuffs along with the regular wool. It does keep the cuffs nice and snug, and works well in the cuffs of children's mitts, too.—Mrs. G. E. Jackson, Comox, B.C.

* * *

Fold several old nylons together as you would to put socks away and you will have a handy shoe shine cloth. Just see the shine!—Miss Alice Bruton, Fife Lake, Sask.

Bake something Unique Bake something Easy



BAKE THESE

CHEESE Apple Rings

The delicious combination of cheese and apple makes this a particularly enticing recipe. It's not difficult and the result is a light golden crusted cheese loaf filled with hot spiced apple. Serve it almost anytime.

CHEESE APPLE RINGS

Scald 1 cup milk. Stir in ¼ cup Blue Bonnet Margarine or butter, ¼ cup granulated sugar and 1 tsp. salt. Stir in 1½ cups shredded Old Canadian Cheddar cheese until melted. Cool to lukewarm.

Meanwhile, measure ½ cup lukewarm water into mixing bowl; stir in 2 tsps. granulated sugar. Sprinkle with 2 envelopes Fleischmann's Active Dry Yeast. Let stand 10 mins.; THEN stir well.

Stir in lukewarm milk mixture, 1 well-beaten egg and 2 cups pre-sifted all purpose flour. Beat until smooth. Add enough additional flour (about 3 cups) to make a soft dough. Turn out onto lightly floured board; knead until smooth and elastic. Place in greased bowl; grease top. Cover and let rise in a warm, draft-free place until doubled in bulk, about 1 hour.

To make apple filling, combine 4 cups chopped apples and 1 cup granulated

sugar and cook until soft. Add ½ cup chopped walnuts, ½ tsp. cinnamon, and ½ tsp. cloves. Cool.

Punch down dough. Turn out on lightly floured board. Roll to a 10 x 25-inch rectangle. Cut in half lengthwise, then cut into 10, 5 x 5-inch pieces. Place 2 tsps. filling in center of each, close and seal longest sides. Seal ends and tuck under.

Place on greased cookie sheets to form 2, 5-petal rings. Make 3 slits in each roll with scissors. Let rise as before about 45 mins.

Bake in preheated moderate oven (350°F.) 25 to 30 mins. Makes 2 rings.



Every tiny Fleischmann's Yeast grain dissolves quickly and is extra active. Use it next time you bake and see the difference in taste and texture of all your baked goods.

When you bake at home—use Fleischmann's and be sure

Using the Family Car

by K. LAMBERT

IF YOU RECEIVED a questionnaire on your use of the family car, how would you answer it? Here are the replies received from a number of high school students. The students first checked their sex, age and grade and indicated whether they lived in rural or urban areas.

Question: At what age did you receive your license?

Out of the 24 replies, 13 had been driving since they were 16, 3 had waited a year or two and 8 were not as yet licensed drivers.

Question: How many drivers use the family car and how many times per week are you allowed to use it?

Most students competed with two other drivers for time behind the wheel but three families had four drivers each. One 18-year-old student was in the enviable position of being the family chauffeur since neither parent drove!

As to how often? "When I need it for something important — but not often," replied one Ontario student.

Brenda, an 18-year-old Nova Scotian said: "I can use the car whenever Dad isn't driving and says it's O.K. but never in the winter." "Whenever I need it," was Anne's answer from Ottawa. Bob, a 17-year-old rural student in Nova Scotia, is fortunate in that there are several vehicles at his residence so that one is usually available if he needs it.

One Ontario student is allowed to use the family car once or twice a week but "only if no one else needs it and I have a good reason." "Friday and Saturday nights," replied a 19-year-old Kitchener youth, whereas an 18-year-old Winnipeg student said, "Usually three times a week." "Almost any time" and "frequently" were other answers from Nova Scotia.

Question: Do you buy your own gas and are you expected to wash the car?

Seven of the 16 who drove bought their own gas; 4 said "no," and 5 answered "sometimes." Washing the car was more definitely affirmative with 8 answering "yes"; and 6 "sometimes." Even those who did not drive, occasionally included washing the car in their chores.

Question: At what time are you expected to be home with the car?

Replies from 16- and 17-year-olds fell between 12 midnight and 1:00 a.m.

Some in the 18- to 19-year-old bracket got a little more leeway. One 17-year-old girl was only allowed to use the car at night for such special meetings as 4-H.

Question: Where did you learn to drive?

All but three Ontario teenagers said they were taught at home by parents. These three got driving lessons through a high school driving course.

Question: Do you feel the arrangements for using the family car are fair?

It was encouraging to learn that all but one felt the arrangements at home were fair. The one dissenter said he felt he should be able to use the car more often.

Mary, a Grade 11 student said, "Yes, I get the car when I need it but not for something foolish." Harry replied, "Yes, the arrangements allow the whole family to use the car," while Bill, a 16-year-old Ontario student, admitted quite frankly that he thought the arrangements were fair. He added, "if I had the car more I would probably get into more trouble."

Question: If you earned enough money would you buy your own car?

Eleven said "no" to this. Five thought they would like cars of their own.

Bernice, a student from Nova Scotia, summed up several replies by saying: "No, I would have more important things to do with my money than buy a car, such as college education and clothing."

Others were economy minded and answered: "No, a waste of money," and "No, it costs too much to keep a car going." Ron, a Grade 11 Ontario student, replied, "I'd rather buy a motorcycle."

Those who answered "yes" gave reasons similar to those expressed by Steve, an Ontario farm boy. "Yes, because I need some way to get to the lake and other cities. My mother uses the car all summer and my dad has to have the truck."

Betty's reason was, "The family car is too big for me to handle," while Brian replied, "I don't like using other people's cars." A Grade 11 girl from Nova Scotia would like to earn money to buy a car so she could drive to school and an Ontario 16-year-old said she would buy a car "to be able to say it is mine and to be able to have it anytime."

However, surveys suggest that if you have a car of your own you are likely to get lower school marks. Research so far indicates that grades can suffer if students have too many opportunities to drive. On this basis it seems wise for teenagers to continue using the family car particularly when students who do not drive at all, or who drive only on week ends, come through with the best grades.

Boy and Girl



Story and drawings
by JANET D. SCHINTZ

SUMMER was over. The wild flowers had almost all gone underground for a long rest. The leaves on trees and bushes were beginning to look droopy and dusty.

Three tiny tree elves, Tip, Top, and Tup, talked together at the foot of a tall tree.

"Everything looks tired," said Tip. "It's time we got busy with our colors to brighten up the country before winter sets in."

"Right," agreed Top. "See that rose bush. It would be much cheerier painted red and gold."

"The squirrels and birds that stay all winter will find the rose-hips more easily if we color them scarlet," added Tup.

"We'll ask all our friends to help," they decided. "It will be a big job. We'll need gallons of colors that are as bright as possible — yellow, orange, red and a little brown."

"And brushes to paint with!"

"And something to hold the paint!"

What problems! They put on their thinking caps. These were harebell flowers they had gathered in the summer, but they fitted snugly and when the elves wore them they always got good ideas.

They thought and thought.

At last Tip exclaimed, "I know! I'll supply the brushes. Feathers will do. I'll ask the bluebirds to help and the robins too."

"Well," went on Top, "I believe I can make some pots. I know where there's a pond. There are hundreds of empty snail shells along the shore. I'll put handles on them and they'll serve quite well."

"Oh, dear," concluded Tup, "that leaves the color to me. I don't know what to do," he wailed as the other two went hurrying off.

He jammed his cap down tighter and thought again. Suddenly he smiled a wide smile. "I'll ask the Fairy Queen," he said to himself, "she always knows the answer." Off he scurried.

Tip and his friends had the easiest task. The gentle bluebirds were glad to share some of their lovely feathers. The perky robins, running jauntily in the grass, cocked their heads on one side as they said, "Chuck - chuck - chuck. Certainly we'll help. A good thing you came now. We'll soon be going south."

The paint pots weren't difficult to make either. The shells looked very attractive dangling from handles of strong dry grass.

Tup took his troubles to the Fairy Queen. She smiled at his worried wee face. "Oh that's easy," she assured him. "You must get up very, very early tomorrow, just before the sun peeps over the hill tops. Gather the dew from the grass and leaves and bring it to me."

Tup and his friends collected the pots from Top and filled them to the brim with dew. Then the Fairy Queen waved her magic wand and, in a twinkling, the dew took on

beautiful, glowing colors — scarlet and yellow and orange — and just a little brown.

Now everything was ready — hundreds of tiny feathery brushes and shell paint pots full of brilliant color.

How the elves whistled and sang as they happily slapped the paint around. They painted the cottonwood trees yellow with touches of brown, the chokecherry bushes got coats of rich, deep red, and the poplars became golden with a flush of pink here and there.

The wild rose bushes were glori-

(Continued from page 45)

THEY SET THEIR MINDS TO MUSIC

This means that while one band is rehearsing, the various sections of the other band are practicing. Then the routine is reversed. They attend classes on the use and care of their instruments. Usually there's an afternoon swim break and then it's back to either private lessons (available at 3 for \$6) or small ensemble work. More rehearsals follow supper and these wind up with a wiener roast, films or a singsong.

From the beginning Frank insisted on the best of teachers. This year, for example, Purdue University's Al Wright and Dickinson State College's Dwaine Nelson, both recognized professional musicians, came to direct

(Continued from page 18)

CHAROLAIS ARE COMING

Canada, they would also have to do the same for Mexico, and they felt that it would be difficult to obtain the same effective control in that country as could be achieved in Canada.

John Cross, former president of the Canadian Beef Council, had a long-distance telephone conversation with Brooks Keogh on the subject. Cross, in his usual blunt fashion suggested that the real opposition did not result from health consideration, but was due to pressure from purebred cattle associations who would like to see the Charolais excluded from this continent. "They're leading you around by the nose," he told Keogh.

To the average Canadian cattleman, who had no particular interest in Charolais, the question was, "Is it worth it?—Will these cattle do enough for us to risk not only the

ous! Their hips were bright scarlet, their leaves yellow and orange and red. The work went on. Not that it was done all in a day. Oh, no! it took quite a while, but at last the whole countryside looked gay.

People began to say to one another, "Aren't the fall colors lovely? Must have been a touch of frost to make the leaves turn like that."

Don't you believe it! Get up very early some morning and peek among the leaves. Perhaps you'll catch a glimpse of Tip or Top or Tup with their feather brushes and shell paint pots! V

the bands. Specialists in each of the sections (woodwind, brass and percussion) are brought in from various parts of Canada and the U.S. and their enthusiasm spills over onto the students.

As for the youngsters, their big moment comes at the week end. On Saturday afternoon both bands record their programs on tape. That evening they present a combined concert. And whether it's that sophisticated tango rhythm, the stately phrases of a Bach chorale or the crescendo of the finale from a current musical comedy, you know that Saskatchewan is developing a fine crop of young musicians. V

testing. In other changes, there will be no minimum size of litter, but pigs must complete the test by 200 days rather than 220.

A program of farm enlargement, consolidation and land use adjustment which will cost over \$3 million during the next 5 years has been approved as a shared ARDA program between the Nova Scotia and Canada governments. Goal, says the Nova Scotia Minister of Agriculture, is to bring thousands of idle acres into production and in fact to eventually double the value of the farm industry in Nova Scotia.

The new fall rye variety Frontier, developed at Swift Current, Sask., and which is out-yielding Antelope and Dakold, is being released to seed growers. Canada Department of Agriculture says most seed will go to pedigreed seed growers.

The index of prices received by farmers for farm products jumped 9.5 points to 267.3 in June.

Small slaughter houses in Manitoba can now get federal inspection under an agreement between the province and the Canada Department of Agriculture. The agreement, which means that more meat will be

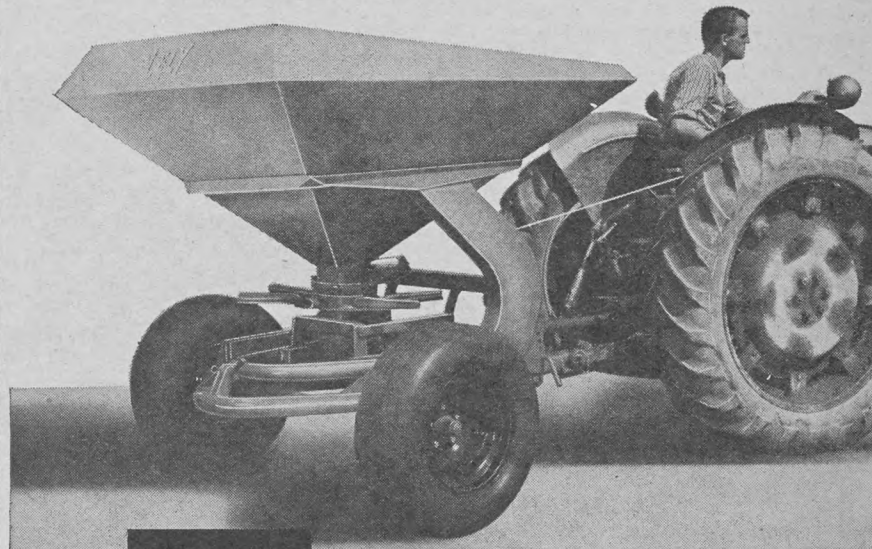
eligible for inter-provincial and international trade, could provide a pattern for other provinces.

George McLaughlin, vice-president of the Dairy Farmers of Canada, and a dairy farmer from Beaverton, Ont., is chairman of the new 14-man board which has been appointed to handle milk marketing in Ontario. Vice-chairman of the board is Orville Guy of Winchester, president of the Concentrated Milk Producers Association. The personnel of the board represent dairy farmers from all parts of the province. The board will handle the marketing of all milk in the province eventually, under the supervision of the Ontario Milk Commission headed by George McCague. The board's first job will be to acquire and organize staff and to establish operating procedures before it takes over the marketing of all milk. There is provision in the act under which it operates for the board to conduct a milk pooling operation.

British Columbia and Federal Government officials are seeking agreement on a plan to share in assistance for the hard-hit fruit growers of British Columbia. The

(Please turn to page 56)

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News Highlights

(Continued from page 12)

cludes the construction of ditches, dikes, bridges, culverts, erosion control structures and earth moving on 35 flood control projects.

Despite plentiful rainfall, the 1965 hatch of ducks in the Prairies has been disappointing and the Canadian Wildlife Federation predicts that another year of overhunting would be disastrous. It refers to

last year's duck season in the United States which was extended a full 5 days.

A new method of scoring hog carcasses under Record of Performance is being adopted, which calls for a calculation of the yield of saleable trimmed cuts in a carcass rather than for the total points awarded for various measurements. Four pigs from each litter are still required for

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If you want satisfactory relief from 'itching piles'—here's good news. A renowned research laboratory has found a unique healing substance that promptly relieves the burning itch and pain—actually shrinks hemorrhoids. This substance has been shown to produce a most effective rate of healing. Its germ-killing properties also help prevent infection.

In case after case "very striking improvement" was noted, even among cases of long standing. And this improvement was maintained over a period of months!

This was accomplished by a new healing substance (Bio-Dyne)—which quickly helps heal injured cells and stimulate growth of new tissue. Now Bio-Dyne is offered in ointment and suppository form called Preparation "H". Ask for it at all drug stores—satisfaction or money refunded.

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FOR THE KIDNEYS



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A Battle Plan for Rural Poverty

by **DON BARON**
 Editor

IT'S ONLY A YEAR since the report of the Eastern Canada Farm Survey pinpointing the problem of rural poverty was released. The survey, which was commissioned by ARDA and carried out by the firm of Hedlin-Menzies and Associates, found conditions of rural poverty that many Canadians could scarcely believe existed. The report related how, in some of these pockets of poverty, succeeding generations failed to shake themselves out of their troubled situations with the result that entire families for generations remained on welfare — a drag on their communities.

The report said the poor farms of today are the rural slums of tomorrow. They are also the source of a continuous flow of uneducated and unskilled people to the towns where they create urban slums and become the hard core of the industrial unemployed.

The problem may well be the most important one of our time, but, according to Dr. M. W. Menzies, there is a solution to it. As co-author of the Hedlin-Menzies report he has now prepared a plan of battle to deal with the problem and he recently presented it to a meeting of economists.

Menzies starts right off by saying that mass poverty in rural Canada is unnecessary today. He says poverty is unemployment; it is human suffering; it is unnecessary economic waste; it is an obstacle to economic growth. In fact, he says, it is the crisis of the modern world and Canada's poverty is simply a minute part of the staggering problem of world poverty.

It exists only because we have not tried to avoid it.

Dr. Menzies doesn't suggest there is a simple, cheap solution to it. But nevertheless, he reasons, the time has now come to solve it. It won't be solved, he says, within the farm line fence, or simply on the back concession. For he explains that the nature of rural poverty was radically changed with the coming of the technological revolution.

Farmers and farm leaders and politicians have refused to look at rural poverty, he states. Because of their small-farm bias they refused to admit its massive extent. For farm policy, they continued to advocate "deadly palliatives such as parity prices," rather than facing up to the real alternatives — deepening farm poverty in some areas, or large scale agricultural adjustment.

The battle plan he suggests is one that offers a bright ray of hope. It is positive rather than defensive. It calls on society to move ahead with its technological advance.

It's a program that says to farmers, "Go ahead, develop, become more efficient and more prosperous." But for those rural people who, for various reasons, will not find a place in this developing agriculture, it calls for a mammoth program with generous assistance to help them move from their poverty farms and to get the necessary training for other work, and then further assistance to move to places where they can find a useful and rewarding life.

To the economy as a whole, the program is offered as a way to take more people off welfare and put them to useful work.

The plan stresses regional development as the most important matter of all, saying "if these policies are not designed within a framework of 'balanced regional development' there is a danger that increased mobility will become a euphemism for a further concentration of population in Central Canada and a further relative impoverishment of the resource-based regions."

One reason for the need of regional development, says Menzies, is because in the market place today, resource-based regions will continually fall behind the urban-industrial areas. Why? Because industrial firms have the method of administered prices to protect their welfare while labor unions have their immense bargaining power to win benefits for their members. The market system for such primary producers as farmers, does not give them similar power.

An attack on poverty is necessary for many reasons, says Menzies, not the least of which is the tremendous cost of poverty in lost labor, lost purchasing power, and in mismatching of supply and demand for labor, which leads to inflationary pressures.

But the first need, says Menzies, is for our society to realize the one over-riding fact of the modern age — the incredibly rapid pace of the technological change. Then we must be prepared to pay generous compensation to those people who are damaged by the rapid changes that are taking place.

Dr. Menzies recalls how the Eastern Canada Farm Survey showed that the "farm problem" is, in fact, two problems — the poverty problem, and the agricultural problem.

The poverty problem is the problem of people snared in circumstances from which they cannot escape. For instance, Dr. Menzies saw no hope for the person on the small non-commercial farm. As technology advances, they must fall still further behind. These people must be freed from their circumstances. This means

training them, and moving them so they can become a new and powerful stimulus to the secondary and service sectors of society.

According to Dr. Menzies' calculations, 209,000 of the 481,000 farms listed in the 1961 census for Canada, are uneconomic ones. He predicts that if his program was brought into effect now, it could be carried to a conclusion within 10 years, and at that time, there would be only half the number of people on farms as there are today. At the same time, there would have been a reallocation of their land to farmers with the resources to bring it back to full production.

With only half the present number of farms in existence by 1975, and with consolidation taking place of the farms that survive, agriculture would be onto a sound commercial basis with the agricultural problem largely solved.

Menzies would make his plan available to farmers who have gross sales of less than \$3,750 per year, and to male members of the labor force with an income of less than \$3,000 per year.

Its goal would be to encourage and help these people to take training, and then to move from depressed areas to "growth centers" preferably within their own province or region. When they fail to find private employment, they would be offered jobs in new kinds of public works activities.

To enter the plan, farmers would first have to agree to sell their farms to some agency set up for the purpose, or to an approved purchaser.

Since farmers over 55 could hardly be expected to adjust, they would retain their farm home for life. But those under 55 would be paid an adjustment salary of \$200 per month for a year. They would also be offered an incentive bonus of \$1,800 to sell their land to the government agency as well as another bonus of \$1,800 to move to an approved growth center. Finally, they would get a training incentive payment of \$1,200. It comes to a total payment of \$7,200 for a man's release of land, relocation, and training. Together with the sale price of the land, it should be enough to get a farmer back onto his feet in a new career.

Under the plan, the person over 55 would be offered an early retirement pension equal to that provided to old age pensioners, or a public works job at the national minimum wage of \$2,400. He would be eligible for a relocation bonus of \$1,800 and at age 65 he should get the old age pension.

Farmers between 65 and 75, all of whom will soon be getting the old age pension, would be offered a relocation bonus too if they wished to move, and another bonus to give up their land.

The plan suggests that rural non-farmers under 55 be offered an adjustment salary of \$2,400 for 1 year, a relocation bonus and a training incentive payment of \$1,200 for a total of \$5,400. Those between the ages of 55 and 74, would be offered a relocation bonus of \$1,800 and those under pensionable age, a public

works job at \$2,400 a year if equivalent employment is not otherwise available.

Is the plan too costly?

If all those eligible, accepted the maximum benefits, the total gross cost would be \$700 million a year for 10 years, says Menzies, a little over one-third of our annual defense costs and less than 1½ per cent of our gross national product.

In itself, he reasons, these costs are not unthinkable. But, he goes on

to say, they are gross costs. They would be offset by sharp reductions in welfare payments and the elimination of many urban and agricultural programs. If the indirect costs associated with poverty are taken into account, the net costs would be reduced still further. Since the plan's costs are really investments in higher human and resource productivity, Menzies is sure the benefits far outweigh the costs.

Dr. Menzies makes a few more

points to explain the plan. First of all, he says, the estimate of costs is based on the premise that all qualified people will use the plan. Since it's a voluntary plan, this would not happen, so costs would be lower.

Major costs, he says, would have to be borne by the Federal Government, although the provinces would be deeply involved in the administration of the scheme, and in the costs as well.

Other major costs, he suggests,

such as those for new training centers, housing facilities, and maybe the costs of relocating small businesses in some towns and villages, are really investments in increased productivity, with a favorable benefit-cost ratio.

Dr. Menzies' plan is one that has caught the interest of many farm leaders. They will be studying it closely in the months ahead. Farmers will undoubtedly be hearing more of it.



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ROYAL BANK

News Highlights

(Continued from page 53)

assistance could come to \$8 million. They are also seeking ways in which British Columbia can join in a federal-provincial crop insurance program for future coverage of the kind of emergency faced by the B.C. fruit industry this year.

A hand book dealing with all the aspects of safety and application of pesticides has been published by the Canadian Agricultural Chemicals Association for distribution to all those who use these chemicals.

Earliest planted corn gave the most even growth and development in crop tests at the University of Guelph.

PROPOSE FARM CREDIT CHANGES

With farmers facing the continuing need to adjust to changing times, the Canadian Federation of Agriculture has called on the Federal and provincial governments to see that better credit services are provided to them. Following a detailed study of the farm credit services throughout the country, the CFA states there is a clear-cut need for improved intermediate and short-term loan services, and for new credit services to help low-income farmers. A credit counseling service should also be provided in the latter case.

The credit problem is complex, says the CFA, involving sometimes not enough credit, sometimes too much or badly used credit, and at times excessively costly credit.

The CFA goes on to specify the needed changes, beginning with the suggestion that the Federal government's three existing farm credit administrations, Farm Credit Corporation, the Veterans' Land Administration and the Farm Improvement Loans Administration, should be in-

tegrated into a single crown agency to provide a co-ordinated and improved farm credit service throughout the country.

It also recommends:

1. An expansion of intermediate term lending.
2. Greater co-operation between the Federal Government and the provinces in developing and carrying out farm credit programs.
3. That provincial credit programs be developed under ARDA to help low-income farmers. Farm consolidation, land reorganization and community credit would be involved.
4. To protect against misleading or high interest rates, the enactment of finance charges disclosure legislation and the continuation of government control on interest rates charged by small loan companies.

5. Continuation of existing interest rates under the Federal farm credit lending program and the Farm Improvement Loans Act.

6. Subsidized interest rates on loans to low-income farmers for rehabilitation and development purposes.

7. Enactment by the Federal Government of suitable emergency or disaster credit legislation to serve farmers.

8. A special study and a subsequent information program on the proper use of credit in the farming industry. ✓

URGE NEW FUNDS FOR EDUCATION

The property tax is an unsatisfactory source of funds for financing basic education costs, says the recent report of the Saskatchewan Royal Commission on taxation. The commission proposes that the province should assume complete financial responsibility for a foundation program

for public school education, with costs for educational services over and above this financed locally. School buildings and related facilities should be the responsibility of the local authorities using property tax revenue.

Commenting on the report, the Canadian Federation of Agriculture goes one step further suggesting that there should be a basic, adequate level of educational services provided across Canada with Federal funds available to any province that needs them. ✓

POOL PACKERS' OPENING

Manitoba Pool Elevators' meat packing plant in Brandon will open in mid-September according to latest reports. The new plant, to be known

as Pool Packers Ltd., will be operated as a wholly owned subsidiary of MPE. A separate rendering plant is also nearing completion.

While the main plant will handle about 200 hogs, 35 cattle and 60 calves or sheep an hour, it has capacity for a yearly kill of 39,000 cattle, 100,000 hogs and 10,000 calves and sheep. Rendering facilities will convert inedible materials, shop trimmings and dead animals into meat and blood meals and tankage for animal feeds.

Pool Packers plans to sell beef, pork and lamb carcasses plus a full line of smoked and processed meats through a 6-man sales force operating in the Greater Winnipeg area, eastern Saskatchewan, northwestern Ontario and eventually eastern and export markets. ✓

Letters

Wants All Research Reports

I want to compliment you on your August edition. There are several articles there that have enough information and detail to read and file. Since your Canadian competition has recently become a heterozygous agglomeration of re-runs, I would hope that you would set your sights on steady improvement.

I like your format and your color, and the articles are becoming much more useful. Personally, I hope you will cut down the size of page to 8" by 11" some day. It will be more sophisticated and more convenient for filing. Really, I have no right to talk to an editor like this, but I would like to see you develop your paper to the point that you are reporting the good American research work as well as Canadian. Incidentally, the article on sheep in Britain is excellent but don't forget that a year from now we want the 1965 results — good or bad.

A.S.,
Middlesex County, Ont.

I am sure you can produce a huge clientele of purely agricultural people if you produce the data. Even if it is necessary to increase your subscription rates to do it, the circulation will increase if you make it a prestige item.

Honesty No Shame

Dear Pete Williams:

Although I always turn to your letter when I open the paper, yours of the July issue induced me to write and thank you for your many letters.

I am sorry to say I noticed this trait that you mention in Canadian character when I came to Canada in 1903. People seemed to admire a sharp one and vote for him. Now I was taught that a thief was thief whether he wore sackcloth or silk, and was as much to be despised in any raiment.

It is high time we got back to the Victorian idea of being honest and proud of it. People seem almost

to be ashamed to admit to being honest.

Another thing. If we are to improve our morals we must admit that what is sauce for the goose is also sauce for the gander and as my old Dad said when I left home, "Never forget my boy, woman is the weaker vessel and it is your duty to protect her even from yourself."

A.W.,
Salmon Arm, B.C.

Must Manage on Nothing

I used to enjoy the Guide, but find it has slipped — no fiction to speak of. Most of the farm articles are of little use to poor struggling farmers like me. I am more interested in how people manage on nothing than in how well-off people can become better off.

E.P.,
Petersfield, Man.

Improved Format

We like the way your format has improved and we all enjoy Country Guide immensely, especially the beautiful nature stories that are so refreshing from the usual sex and crime stories of today's magazines.

Mrs. V.D.,
Mission City, B.C.

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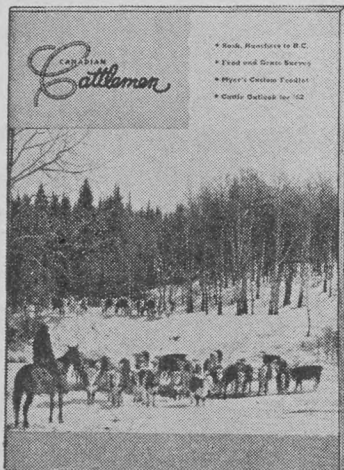
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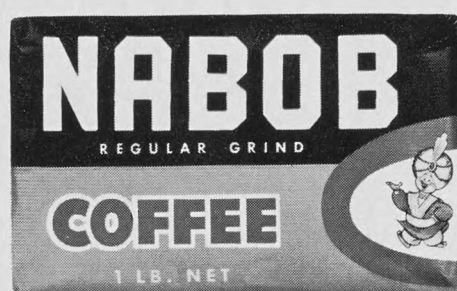
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Hi Folks:

One look at the crowded highways and parks this past summer should make a fella stop and think a little before he sells the farm and joins the big rush to the cities. Those hot, desperate faces you saw peering out of car windows were city folks looking for a bit of peace and quiet. The sad part of the whole business is that they probably did not find it — unless they happened to know somebody like you with a quiet, peaceful farm. So many people are trying to "get away from it all"

these days that the so-called wilderness parks are getting more crowded than the cities.

If you think I'm kidding I suggest you buy yourself a tent or a trailer and go along with them next summer. It will be real good training if you still figure on selling and moving to the city. In fact, if you can stand living at a public campsite for a week or so in July or August it's a sign that you could live maybe 5 or 6 years in a modern city before you start to go up the wall.

One feature of city life you would learn about in a hurry at camp is neighbors' kids. If you think you have trouble with grasshoppers, wait until you try to grow a few trees and shrubs with **THIS** pest on the loose. You can't spray for them, or even pray for them. By the time you've lost a favorite tree or two you are not in the mood for spiritual communication. And there's no use saying things will improve when the little so-and-sos get older. Like grasshoppers, there is always a new batch hatching — only grasshoppers don't grow up and roar around the streets on motor scooters.

In the big city, kids run about four per house, 20 to 24 houses per block. But in the public campsites they reach epidemic proportions. Out there, they are noisier and closer, and so are their pesky parents. This is the final, terrible harvest of the cult of **TOGETHERNESS**. Instead of the "wide open spaces" of the colored travel folder, you find yourself trying to pitch a tent in a space about the size of a milking stall. If you tried to crowd your cows like that, the barn inspector would close you down. In place of "breath-taking scenery" you get breath-taking dust, stale cooking smells and overflowing garbage pails. The city man has driven a thousand miles to "get away from it all" only to find he has brought it all with him, only more so.

If you figure on moving to the city so you can make more money, you will probably be able to sell your place to some city man who is looking for peace and quiet.

Sincerely,
PETE WILLIAMS.



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